

IND

MODEL CAR *Science*

December, 1969

New
model building
techniques

Latest race
reports

Build our H.O.
hobby track

MONOGRAM'S
"Clear Boot" rod



REVELL'S

WILD '70

SUPER STOCKER

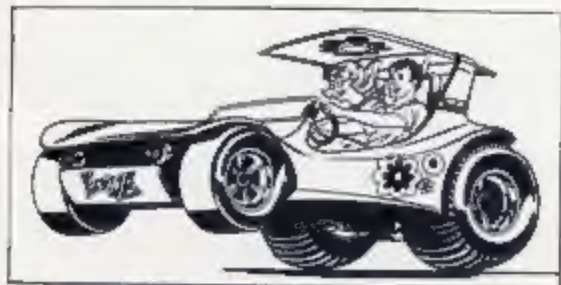


MPC'S

"SADDLEBACK
DART"



A FORMULA "A" WINNER -
IN 1/32 SCALE!



SAND CRABTM

**It's Sandsational—
this New Monogram
Way-Out Dune Buster**

Racing on beach and desert sand is big fun. Dune busting is real excitement. Enjoy it in a new way with the Sand Crab, the newest Monogram fun car designed by Tom Daniel. It's the wildest, most exciting Dune Buggy of them all, and a beautiful model too.

The Sand Crab has an unusual custom body with chromed spoiler roll bar, topped with a tinted see-thru roof, molded bucket seats with built-in head rests and a big Volkswagen 1600 engine and two carburetors. There's lots of chrome, great big dune tires and steerable front wheels. Sand dune display stand included to show off the model in a "natural-like" setting.

Get a Sand Crab kit today at your favorite store. Costs only 2 dollars or less.



Monogram

quality hobby kits



Made Exclusively by Monogram Models, Inc., Subsidiary of Mattel, Inc. Morton Grove, Illinois.

MODEL CAR SCIENCE

Volume 7, Number 12



MODEL CAR SCIENCE is published monthly by Delta Magazines, Inc. Executive offices and subscriptions, 131 Barrington Place, West Los Angeles, California 90049, Telephone 213/476-3004. Single copy price: 60 cents. Second class postage paid at Sparta, Illinois. Subscription rate: 12 issues for \$5.00, U.S. and possessions, 12 issues for \$6.00, all foreign countries and Canada. All editorial contributions and advertising inquiries should be addressed to Editor, MODEL CAR SCIENCE, 131 Barrington Place, Los Angeles, California 90049. Unsolicited contributions should be accompanied by return postage and Delta Magazines, Inc. assumes no responsibility for loss or damage to such unsolicited material. Printed in U.S.A. Copyright 1969 by Delta Magazines, Inc.

CONTENTS

THE "RIDGEROUTE" RACEWAY	16
Build our H.O. hillclimb!	
IT'S A "GASSER"	22
Cox's dune buggy, that is!	
THE "CLEAR ROOF" ROD	24
Monogram's "one off" show stopper!	
MPC'S "SADDLEBACK DART"	30
A violent looking machine!	
TROPHY COLLECTOR	34
Part III of our H.O. car building series.	
NAMRA RACE REPORT	44
Glen Cove and Nutley provided real action!	
FIRST OF THE '70 "SUPER STOCKERS"	54
Revell's newest wailer!	
FORMULA "A" MEANS ACTION	58
Here's a 1/32 scale screamer!	

REGULAR FEATURES

MODEL MAIL	4
THE TECH SHEET	8
CAPTION THE CARTOON CONTEST	14
THE AMERICAN COLLECTOR	28
THE HOME LAYOUT OF THE MONTH	39
MODEL OF THE MONTH	40
SPEEDY	47
HOCXI WORLD	62
NAMRA WORLD	53
THE MCS CARTOON TALENT CONTEST	61
EASTERN OUTLOOK	64

PUBLISHER
Stephen D. Uretta

EDITOR
Raymond E. Hoy

MANAGING EDITOR
Tom Madigan

TECHNICAL EDITORS
Don Emmons
Tom Malone
Floyd Manly
Mike Morrissey
Tom Payne
Michael Poss
"Brick" Price
Jose Rodriguez, Jr.
George Siposs
David Sinclair

ART DIRECTOR
George Wallace

GRAPHIC DESIGN
Gunter Bahrs

DELTA MAGAZINES, INC.
131 South Barrington Place
West Los Angeles, California 90049
Phone: 213/476-3004

PRESIDENT
Gordon Behn



"The Official Voice
of NAMRA-HOCXI"



Write For FREE LISTING

for
SLOT CAR
SPECIALS
AS MUCH AS

90%
DISCOUNT
ON SOME ITEMS

Special Savings on 1/32 Scale
ready to runs and accessories



ORANGE BLOSSOM HOBBIES, INC.

1975 N.W. 36th St.
MIAMI, FLORIDA 33142

Model Mail

YOU LOSE A FEW...

Why don't you guys ever do an article or two on H. O. scale racing? There are a lot of us out here, you know!

Jason Henderson
Dallas, Texas

Uh, Jason, are you sure you read the same Model Car Science that Ray Grubbe reads?

YOU WIN SOME...

A friend and I are building a fantastic H.O. scale home layout on carpeted 8' x 4' plywood. We dig your mag because it gives us many fresh ideas. Your home layouts are helping us make a great track. And your hop up ideas are helping us to win many races, too.

We'd like to see many more ideas and layouts in MCS. If there is any extra literature that you could send to us on H.O. hop up ideas, we'd appreciate it greatly. Thank you.

Ray Grubbe
Bremerton, Wash.

Thanks, Ray. We intend to really delve into H.O. scale racing heavily in future issues. As a matter of fact, we didn't do too badly in this issue, if you'll notice!

MAKES US FEEL GOOD ALL OVER!

Thank you very much for the honor of being September's Model of the Month winner. May I also thank you for displaying another one of my models in the 1968 August edition of MCS.

My Charger was totally destroyed in a contest and given up as a hopeless cause, so now I have to re-build it. I started the night I found out about it winning and so far it has undergone quite a few changes. I'll send you a picture when it's finished.

I was told by my guidance counselor that this will help get my much-needed sponsor from G.M. in order to enter their G.M.I. course.

Gary Skelton
Hamilton, Ont. Canada

Continued

LIFT OFF TO THE SPACE AGE

ESTES
FLYING
MODELS

ROCKETS

44 KITS

STARTER KIT
SPECIAL OFFER
No. DSK-20

only \$2.00

INCLUDES ALPHA KIT,
2 ENGINES, DESIGN
MANUAL, INSTRUCTIONS

No. DSK-70—SAME AS
ABOVE, PLUS ELECTRIC
LAUNCHER W/BATTERIES

\$7.00

Flights
to 2,000 ft.

GOOD FOR
MANY
FLIGHTS

COMPLETE
LINE OF
ROCKET SUPPLIES

Safe educational gift
for inquiring young minds.

ESTES

FREE FIELD BOX!

Starter Specials DSK-20 & DSK-70 will be shipped in a sturdy useable case with handle. Has compartments for carrying rocket, engines and supplies to launch site.

Rocketry's most complete catalog — includes 32 yellow pages of rocket information..... 25¢

Estes Industries, Dept. 43, Pomona, Calif. 91760

Payment enclosed. Please send me:

☐ DSK-70...\$7.00 / ☐ DSK-20...\$2.00 / ☐ Catalog...25¢

Name.....

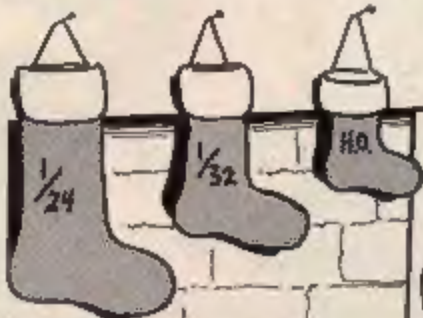
Street.....

City.....

State.....

Zip.....

CHRISTMAS



Go ahead, spoil him. It's Christmas.



CLIP THIS AND LEAVE WHERE PARENTS CAN SEE

He's too old to write Santa, but you know he'd flip if you give him a home race set this year.

So while you're about it, get him the best. Revell. You'll find exciting features like big, easy-to-read lap counters that record 50 laps, and a high-speed banked track. Cars accelerate through the steep banked curve, then roar out in a blaze of speed. Lanes in the bank widen so cars can pass in the curve!

Revell's strong track is made to flex, not break. All sets include crash fence for curves. Different types of track sections make possible endless variations to the track layout. Revell's

swift new cars have indestructible bodies and chassis. Self-adjusting gears stay in perfect mesh indefinitely. New "cheater slick" rear tires improve pick-up and traction. The heavy-duty power pack has power to spare for that extra surge of speed, plus a built-in circuit breaker for safety. Hand controllers have built-in brakes and precise control. So, go ahead, spoil him a little with a Revell Home Race Set. He's been an angel all year, right?

Revell, Inc. 4257 Glencoe Ave.,
Venice, California 90291
Send 15¢ for color brochure on
Revell Home Race Sets and N Gauge Trains.



CHAMPION CAR KITS



#161K - Inline brass rod frame, 5007 stock motor, set-screw front & rear tires, unbendable axles, painted sports car body and all necessary hardware plus instructions - \$9.95

#167K - Same as 161K except with standard onglewinder frame \$10.95

#GP20 Kit - All parts to build a legal group 20 car . . . \$19.95

Formula 3 Kit - Inline GP frame - hand painted GP body - stock motor - All hardware \$5.95



Model Mail

Continued

Congratulations, Gary! Many key people in the automotive industry got their start through their interest in model cars. The Fisher Body Contest has helped many budding stylists through school and into an exciting job at G.M.'s styling studios.

We're glad that we can display the works of talented modelers in our magazine each month. Good luck in the future.

WANTS TO BUILD AN H.O. LAYOUT

I'm planning to build an H.O. layout, and I'd like to know where to get the instructions.

Scott Sherman
Mattapan, Mass.

Check this very issue, Scott. "The Ridgeroute Raceway" should really set you up in fine shape. How's that for service?

GOOD IDEA, JAMES

I've noticed a few letters in your magazine from readers who don't seem to appreciate the big car articles you

HO RACERS GO FOR GROOVE BUSTERS

THESE CARS ARE DESIGNED TO OPERATE ON 12-18 VOLTS D.C.



CARS SHOWN
ACTUAL SIZE

FEATURES:

- HI-TORQUE MOTOR
- NEEDLE BEARING AXLES
- TURNED & BALANCED SLICKS
- POWER DRIVE METAL GEARS
- ROAD HUGGER CHASSIS
- INSTANT BRAKES
- NICKEL PLATED METAL WHEELS
- SNAP-IN GUIDE PIN
- TWIN PERMA-LOCK MOTOR MOUNTS
- SILVER PLATED PICK-UPS
- CUSTOM PAINT JOB

\$250
each

READY TO GO AT YOUR FAVORITE HOBBY STORE

Great Names in Racing BY BACHMANN

• CHAPARRAL 2-E

• HOWMET TX TURBINE

• TOYOTA 2000 G.T.

• MUSTANG MACH 1

• STINGRAY

• DODGE CHARGER

• AMX

• CHARGER III

• AMX/2

• DODGE CHARGER "DAYTONA"

BACHMANN BROS., INC. QUALITY SINCE 1833 PHILADELPHIA, PA. 19124

run. To appease these fellows, why not run an article on how to build a model of the big car that you feature? That would please the model builders, both pro and con, on the big car articles, wouldn't it?

Also, here's a tip. For you builders who wonder how to get those neat gold rims that you see on "funny rails," and "gassers," buy a bottle of Testor No. 1151 copper enamel. It works great, and the results are very pleasing.

Keep up the great work, but let's have more funny car and rail articles.

Jim White
(no address)

Good idea, Jim. We'll give it a shot, soon.

THE EDITOR IS WRONG!

I read in a recent issue that the editor felt it impractical to run an in-depth article on model car construction where lathes, drill presses, etc., were needed to build the car. I'm not sure I agree. Many high school students would be able to put to practical use such information, as they would have access to such tools in their "Industrial Arts" class. And I'm sure many of your readers would be interested in how the experts accomplish

some of their fine works of art.

More car building articles please, but how about utilizing exact-size patterns that we can just form wire, etc., over. It would sure help!

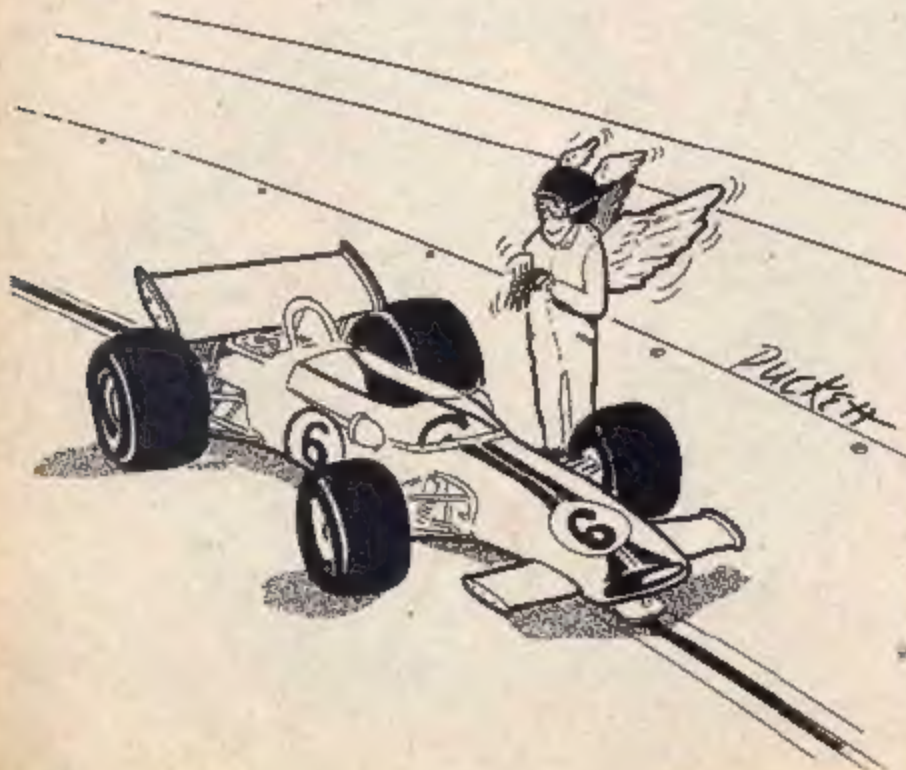
I'm also appalled to hear that other model car magazines and newspapers plan to discontinue the charts that show which motors, wheels, tires, etc., are used by the pros in their big time races. I'll bet you'd be surprised at how many slot racing buffs read those charts, and thoroughly too! We're darn interested in what the pros are using, even if we never get a chance to use them ourselves.

Ronald Huston
Good Hope, Ill.

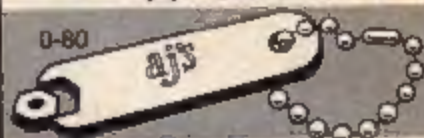
Thanks for the letter, Ron. This is but a part of a long letter that Ron sent to us, but we believe we've covered the major points. The editor admits he may be wrong about the use of complicated, expensive tools (everybody in the office just passed out from shock).

Well, we don't plan to drop the charts, Ron. We agree with you 100%. And we'll try to get more patterns, etc., into our "how to do it" car building articles.

You readers may not realize it, but your letters help to shape our future articles. We try to run what the majority of you want to see, so keep those cards and letters coming.



aj's NEW HO Wrench



for the HO Buffs
Model Motoring and
Railroad



49¢

CAT. NO.
T.K. 083

Here's the one tool every HO fan needs with him all the time. Precision manufactured in minimum thickness for close tolerance adjustments. Use on all standard 0-80 hex nuts. With key chain only 49¢.

aj's NATIONAL RACEWAYS, DIVISION OF

TWINN-K, INC.

BOX 31228 INDIANAPOLIS, INDIANA 46231



It Grinds
It Polishes
It Deburs
It Carves
& It Drills.
It's X-acto's new
Cordless
Power Drill.

A battery operated hobby drill "geared" to deliver the power needed for drilling metals and plastics used in model building.

X-ACTO #378 CORDLESS POWER DRILL SET. Includes drill bit, grinder, center punch and two extra coils. \$5.95 complete, in carrying case (less batteries). At fine hobby stores, or write:

x-acto, inc.

World's largest maker of hobby tools.
Dept. No. 12 48-41 Van Dam St.
Long Island City, N. Y. 11101

1/32 HAND CONTROLLER!

THE AUTO WORLD
T-33 CONTROLLER

\$3.98



FOR ALL REVELL, STROMBECKER
MONOGRAM, ATLAS, ELDON SETS,
and HOME RACING 1/32 - 1/24 CARS.

For all 1/32 - 1/24 scale home racing cars. This controller was designed by experts for home racers. Its non-melting bakelite handle lined with fiberglass cloth houses a high quality ceramic resistor and aluminum plunger, transferring practically "no heat" to the hand.

Long life (tested over 500 hrs). Smooth action, low price. Heavy duty cable is fitted with 3 alligator clips for any use. hook up instructions included.

SEE YOUR DEALER FIRST.
WATCH FOR MORE AUTO WORLD
BRAND ITEMS FOR 1/32 - 1/24

SPECIAL ORDER BY MAIL **\$3.98** Postpaid
Penna. residents add 6% tax

auto world 701 N Keyser Ave, MS
Scranton, Pa. 18508

THE BEST MODEL PAINTING IS DONE WITH AN AIR-BRUSH

More natural, more authentic painting and finishing. Mix your own colors. Fogging, blending, custom finishing without brush marks.

ECONOMY MODEL ONLY \$6.98 RETAIL

**BADGER
PAINT-SPRAY
AIR-BRUSH**

SEND FOR
FREE
BROCHURE

PROFESSIONAL TYPE

**BADGER
hobby & touch-up
AIR-BRUSH**

AT FINE
HOBBY STORES



BY MAIL: Dept. 1
BADGER AIR-BRUSH CO.
9071 SAGE AVENUE • FARMINGTON PARK, ALABAMA 36111

8/Model Car Science

THE TECH SHEET

This month I'm changing the format of *The Tech Sheet* in order to show some new items and results of tests I've run on them.

To start off with, I decided to test out the new Champion H. O. Arco magnets. Photos one and two pretty much tell the story but I must confess that I had to cheat a little. Champion's Arco is much much stronger than stock Aurora magnets, at least the prototypes I tested here. After I rezapped the Arcos, I found that the meter I used went clear off scale so I cheated and placed a thin piece of aluminum under the meter to shield it a bit so it would register somewhere on scale.

I want to point out that these are prototypes and because they are made out of the same material as the D. Z. magnets, the production magnets could very well be stronger than these! I don't expect the production magnets until some time in late November so I

hesitate to give gauss figures and lap times around a measured test track until the magnets are available across the counter.

I did run a comparison test between these Arcos and stock magnets and the results were interesting.

Stock armature, balanced, with Aurora magnets - 23,200 rpm. The same armature with Arcos - 14,500 rpm.

The Aurora 7-1/2 ohm Speed-wound armature, unbalanced, with stock Aurora magnets - 29,700 rpm, but with the same armature, and everything, the rpm dropped to 22,300 when the Arcos were installed. All of these speeds were recorded under free-running, no-load conditions.

So what do the tests indicate without even putting the cars on the track? Just one thing. While the top free-running rpm may be less when Arcos are installed, the torque has gone up considerably and the car is faster and has more "punch" out of a turn than any stock Aurora car ever made. Track tests proved this to be correct.

I also tested out the other new Champion H. O. parts, like the guide pin which is longer and which has a rib on the back side, making it stronger. For 19 cents you can't go wrong with this guide.

I installed the new Champion set-screw wheels on the test car also, and they performed very well, as all silicone tires do. As reported a few



Magnetic field strength of stock Aurora magnet.

Get auto world's 1970 catalog!

★ SEND A COUPON AND 30¢ FOR YOUR COPY RIGHT NOW!
★ GIVE THE REST OF THE COUPONS TO YOUR FRIENDS!

★ New Bike Pages ★

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

WIN \$100
CUSTOMIZE
A MODEL
CAR KIT
• DETAILS •
INSIDE

MODEL CAR CATALOG
1970 30¢
EDITION

• FULLY ILLUSTRATED •
THOUSANDS OF MODEL CARS,
SLOT RACERS, SUPPLIES and
TOOLS to ORDER BY MAIL!
★ New BIKE PARTS Pages ★
SAVE TIME AND MONEY
"Founded in 1938"

NEW 1970
18th EDITION

SEND 30¢ TODAY!
(OR 3 NEW 6¢ STAMPS)
AVAILABLE AT NEWSSTANDS 60¢

auto world • 701 N Keyser Ave, MS
Scranton, Pa. 18508

I enclose 30¢ (or stamps). Send my 1970 Catalog. MS

Name _____
Address _____
City _____
State _____ ZIP _____

NEW from Indianapolis the racing capitol of the world

aj's 1st 32ND SCALE SPEED KITS

Researched and tested by aj's wheel and tire designers to give you speeds you never thought possible.

For All Popular Cars • No Axle or Gear to Change

SPEED KIT #1 SK-1

For COX, MONOGRAM, REVELL, RIGGEN, RIKO (England), etc. One pair threaded wheels and sponge tires for car kits and RTR'S equipped with 5-40 threaded axles.

89¢



SPEED KIT #2 SK-2

For DYNAMIC, REVELL and RIGGEN RTR cars. Set screw wheels and sponge tires for any cars with plain 1/8" (3.175mm) diameter non-threaded axles.

\$1.00



SPEED KIT #3 SK-3

For MONOGRAM and SCALEXTRIC RTR cars. One pair set screw wheels and sponge tires engineered specifically for .096" (2.44mm) axles. Special adapters and installation instructions included.

\$1.00



SPEED KIT #4 SK-4

For ELDON RTR cars. Special designed set screw wheels and sponge tires to fit .118" diameter axles on Eldon RTR cars.

\$1.00



SPEED KIT #5 SK-5

For STROMBECKER cars. Special designed set screw wheels and sponge tires for original axles on Strombecker RTR cars.

\$1.00



Approved by NAMRA, HOCCI and NCC

TWINN-K, INC.

BOX 31228 INDIANAPOLIS, INDIANA 46231

TECH SHEET

months ago, these tires are smaller in diameter than other silicone tires on the market and this is an advantage in that it lowers the center of gravity. When all these items are used in conjunction with the full competition pan and Lancer H. O. plastic body, I found I got the best performance and handling qualities.

I would like to make a correction of sorts regarding the Champion pickups as reported in the October column of *Small Stuff*. The Champion pickups are a bit shorter than other pickups on the market, but they will fit perfectly if you flatten out the little curved piece at the end of the pickup where it hooks into the brush plate.

You could cut away a little of the plastic at the front of the frame which is what I did to make the Champion pickups fit.

One other item that looks like it will be a winner in Champion's H. O. line is the commutator, which is made in such a way as to provide for a timing advance. And to top it off, it is silver plated.

When the complete Champion H. O. line of items are available I plan to run some more tests using the competition belly pan and one of Lancer's H. O. bodies. When you're thinking of any real competition, this is the only way to go, in my opinion.

I did come across a new item from Parma, which is worthwhile, and I've shown pictures as to how to install and modify their new heat sink to fit inside a Russkit-type controller. It is necessary to cut off the bar running over the top of the resistor and grinding off the little "nibs" next to the hole in the bar.

The trigger frame must be cut off just under the bend where the bar starts over the top, or the heat sink will be wobbly on the frame. The nibs are ground off so the heat sink will fit flush with the frame. Russkit and Parma "resistor cores" vary a little in



Magnetic field strength of Champion's Arco magnet (after shielding).

their length so if your resistor is a little too short to fit snug against the ends of the heat sink, a very thin washer must be used so you can get a tight fit.

You must make the resistor fit snugly in the heat sink because there is nothing to keep the resistor from turning or flopping around the bolt. On the controller shown, I placed a thin washer at the back or brake end of the resistor and this achieved the proper spacing for the trigger button.

The older resistor cores are slightly longer, so it is necessary to file away the inside of the heat sink so they fit properly. Remember file or grind away the heat sink, and not the resistor core, because you will find that ceramic mighty difficult to grind down.

As shown in the last photo, it is also necessary to grind back the heat sink at the rear so it will fit inside the plastic case.

It is a good rule of thumb that there must be at least 1/8" clearance between the heat sink and the case so the plastic won't melt. Naturally, I expect you to remove the plastic ribs so the heat sink will stick outside the way it is supposed to.

I should caution you that if you touch that heat sink after running more than a few laps you can get a nasty burn. If you're like so many people who put their other hand over the top of the Ruskal controller you're either going to have to change your

Commutator has segments offset to provide timing advance.



TORINO

COBRA



GRAND NATIONAL CHAMPION

THE EXCITING WINNER AT EVERY NATIONAL CHAMPIONSHIP EVENT IS AVAILABLE NOW IN AN AUTHENTIC DETAILED 1/32 SCALE MODEL KIT FEATURING... VINYL TIRES CHROME ACCESSORIES, RACING INTERIOR, DRIVER FIGURE AND A FULL COLOR DECAL. BUILD THIS CHAMPIONSHIP WINNER TODAY. SEE IT NOW AT YOUR LOCAL HOBBY DEALER. PRICE \$1.00. INDUSTRO-MOTIVE CORPORATION, TROY, MICHIGAN.



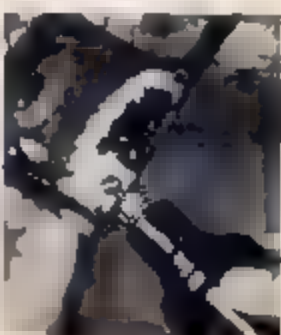


Build models like a pro- with a Dremel Moto-Tool

Drill small holes in brake drums and other parts



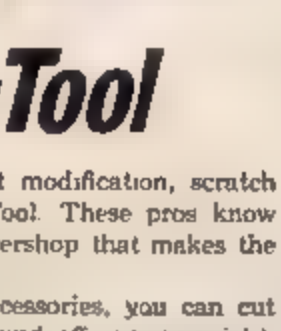
True wheels and sand to desired bevel or contour



Trim hoods or slice off parts with rotary saw



Grind off flashing or plastic patches with steel cutter

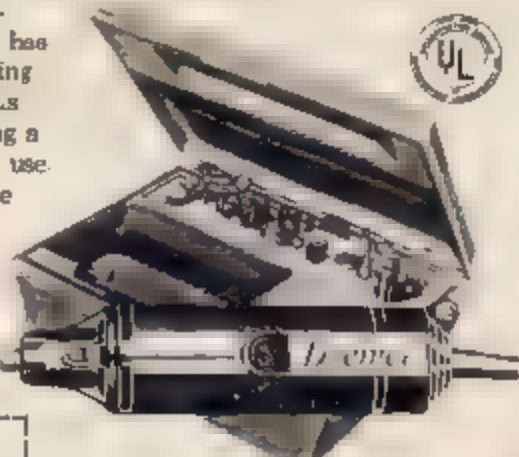


Car modelers who get professional results in kit modification, scratch building and custom jobs use a Dremel Moto-Tool. These pros know there's no substitute for this handy versatile powershop that makes the most of their skill and craftsmanship.

With a Moto-Tool and its complete kit of accessories, you can cut tubing and rods, true wheels, drill small holes, grind off excess weight, shape bodies and parts. You can work faster too, with greater precision in metal and plastics.

Turning over 30,000 rpm, Moto-Tool is the fastest, most powerful tool of its kind. It's compact, light-weight and easy to use. And it has a tough, shockproof Lexan housing. There's a choice of three models from \$22.95 to \$39.95, including a ball-bearing unit for industrial use. Complete kits with storage case and 34 accessories from \$32.95 to \$49.95.

See your hardware or hobby dealer — ask for a demonstration



DREMEL MFG. CO.

Dept. 789-M Racine, Wis. 53401

- ☐ Please send book. I enclose \$1.45
☐ Send free power tool literature

Name _____

Address _____

City _____

State _____

Zip _____

160-page "Dremel Handbook of Hobbies, Crafts and Projects" tells how to work with wood, metal, plastics, glass, ceramics. Covers complete hobby field. Fully illustrated. Only \$1.45



holding habits or build a cage over the heat sink out of brass strips.

The heat sink *does* get hot and if you want to make it even more efficient, add some copper strips to the backside of the resistor and fold them up so they are in contact with the heat sink. Now the heat sink really gets hot, but just remember, all this heat being dissipated by the heat sink used to be concentrated and retained by the resistor core. So the net effect is you're ending up with a cooler resistor and prolonging its life as well as a cooler trigger.

I would suggest you try this heat sink and follow my tips on installing it.

One item I didn't picture this month is the Parma lead wire which in my opinion is the greatest around. It's been out for a month or so and you can tell this wire by the thin plastic insulation (red, white and black) in 14 gauge. It's made up of a whole bunch of number 36 wire and is as flexible as a rubber snake. The overall diameter of the wire is slim enough so you can use it double, which makes it equivalent to three sizes larger than the original number 14 gauge. The total of six lead wires (two wires of each color) when braided are still as flexible as the old single number 14 wire leads.

Many people lose sight of the fact that a really efficient controller is equally, if not more, important when racing Group 12 or Group 20 cars as it is in running unlimited pro-type cars. You should have a controller with the least amount of internal resistance as possible and this is what I mean by an efficient controller. The larger the lead wire, the use of double microswitches are ways to lower the internal resistance.

Stated simply, it works in this manner. The less internal resistance, the less the voltage drop, so the more current going directly to the motor, and therefore, the faster the car will travel. Granted, we are talking about some pretty small increases in speed, but when everybody is running the same wire armature, as in Group 20 races, I, for one, want all the increased speed I can get, no matter how small it might be.

When you view the problem from a heat standpoint it follows that the cooler we can keep both the motor and the controller the better off we are because resistance goes up with every increase in temperature.

Logically then, the cooler the controller parts, the more current is going to the motor, so we use heat sinks on the motor as well as the controller.

In setting up a Group 20 car, I use three, and even sometimes four pieces of Mura motor lead wire on each side (the red and blue has 90 strands of number 40 wire) and use double Lenz shunt wire with regular old Mabuchi brushes.

Then after I've rezapped the magnets and shammed them in closer I'm ready to run with the best of them.



New Parma heat sink with plastic ribs cut away to make room for the fins.



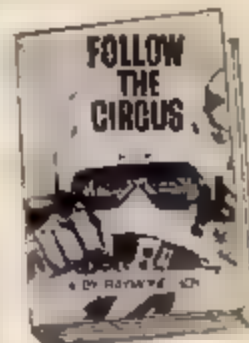
Parma heat sink properly installed. Note top of trigger bar is cut away and thin washer placed at rear of resistor.



Top view showing how Parma heat sink has to ground back at the rear in order to provide 1/8" clearance from plastic case.

The Novel That Gets INSIDE AUTO RACING

A serious novel about a Grand Prix driver who enters the world's richest auto racing series—the CAN-AM!



Raymond Hoy's

FOLLOW THE CIRCUS

\$5.00 ppd.

DELUXE
HARDCOVER
EDITION

"We were there competing for big prize money and even bigger potential sponsorship, and this is what Raymond Hoy has managed to get across. He must have been there listening a lot of times when we didn't know he was there, because his facts are factual his basic story could be real. In fact, it's so real at times that I keep seeing his characters in real life, now."

BRUCE MELAREN—CAN-AM
CHAMPION

"... a novel guaranteed to stoke the very heart-cockles of motor dom's race-circuit aficionados."
SPORTS CAR GRAPHIC MAGAZINE

"... none of the jarring technical lapses and phoney racing situations that make other such novels laughable, and this is refreshing."
ROAD & TRACK MAGAZINE

THE IDEAL XMAS GIFT

Pacific Publishing Group
P.O. Box 1821
Thousand Oaks, Calif 91360

Send _____ copies of "Follow the Circus"
@ \$5.00 ea. ppd.

Cash ☐ Check ☐ M.O. ☐

Address _____

City _____

State _____ Zip _____

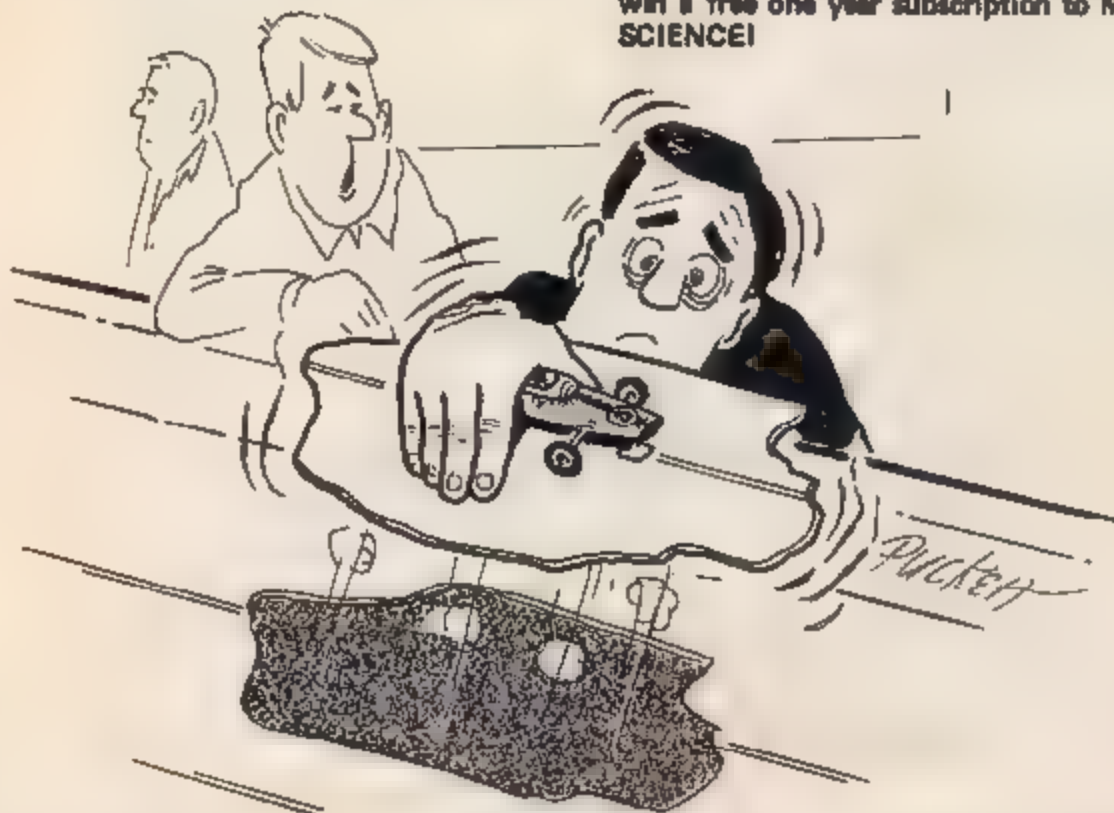
Calif residents add 5% sales tax

December 1969/13

"CAPTION THE CARTOON" CONTEST

This is the simplest contest to enter and win yet! Just think up a gag line to this wild cartoon by Joe Puckett, then fill in the coupon and mail it as soon as possible.

If you don't win this one, watch for the next one. We'll be running one a month! And you can win a free one year subscription to MODEL CAR SCIENCE!



Clip and mail today! Win a one year subscription to MODEL CAR SCIENCE!

MODEL CAR SCIENCE
Dept. Dept. A-10
131 Barrington Place
Los Angeles, Calif. 90049

My gag line is _____

Name _____

Address _____

City _____ State _____ Zip _____

14/Model Car Science

WINNER OF THE OCTOBER CONTEST

Jim Kreslin
2210 Hastings Dr. Apt. 212
Belmont, Calif. 94002



"I shoulda told you, Frank,
he's running his new lightweight shell!"

**7 ACTION
PACKED
ISSUES...**

**for only
\$1.75**

NEWS
STAND
PRICE

~~\$3.80~~



SEND NOW! for MODEL CAR SCIENCE

Each issue is jammed with interesting ideas on the latest customizing tips, ideas on how to build a slot track, current chassis building techniques, tips on new items, painting pointers, and many more. If you're a model builder, you won't want to miss this fantastic offer.

**LIMITED
OFFER!**

MAIL TODAY

Model Car Science
131 Barrington Place
Los Angeles, California 90049

Send me Model Car Science for the
next seven months.

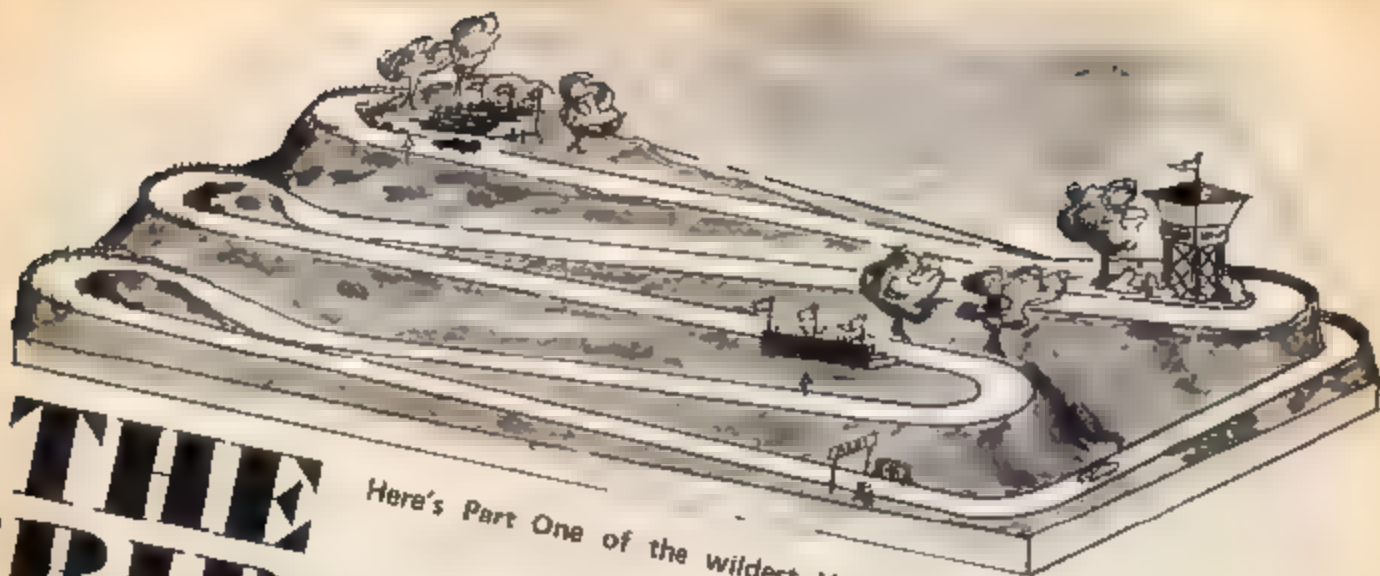
I enclose \$1.75 in ☐ cash ☐ check ☐ money order

NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____



Here's Part One of the wildest H.O. scale hillclimb ever!

THE "BRIDGE ROUTE" RACEWAY

Owning your own HO slot car track has its advantages. You don't have to jog down to the nearest commercial track just to test out a car, or to run a grudge race against a buddy, and besides, most raceways don't cater to HO scale anyway.

If you're like most of us, you probably got an HO layout for Christmas or a birthday. Or else you refunded Coke bottles until you had the necessary scratch. Groovy... you get it home, and now, "Where to set-up?" The kitchen table? No, too small. The dining room table? Better, but that last crash cost you that 100 year old fruit bowl of your grandmother's. Eureka! The living room floor! Fantastic! Everything looked rosey until the cat swallowed your new Mako Shark at turn nine. Oh well, no great loss, it was full of lint and hair from the carpet anyway.

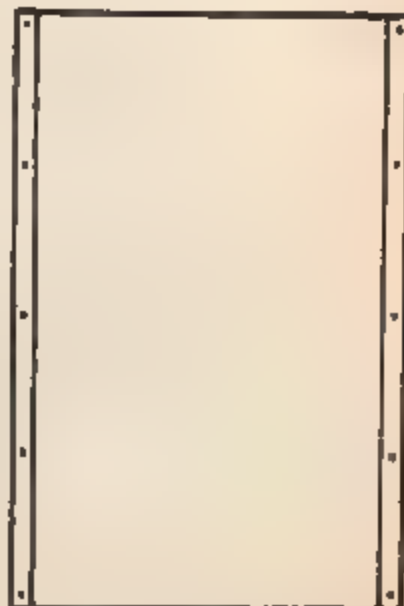
Now what do you do? Simple, read MCS for the next few issues and we will show you the how to build one of the wildest HO tracks ever... "What is it?" you ask. "Why, a hillclimb, of course," we reply.

Hillclimbs such as Pike's Peak, and twisty courses such as Monte Carlo offer the racer more fun and excitement per foot than any other type of course. "Bridge route" was designed for accessibility to lost cars, ease of construction, low cost, minimum space used to house it, and the most fun possible.

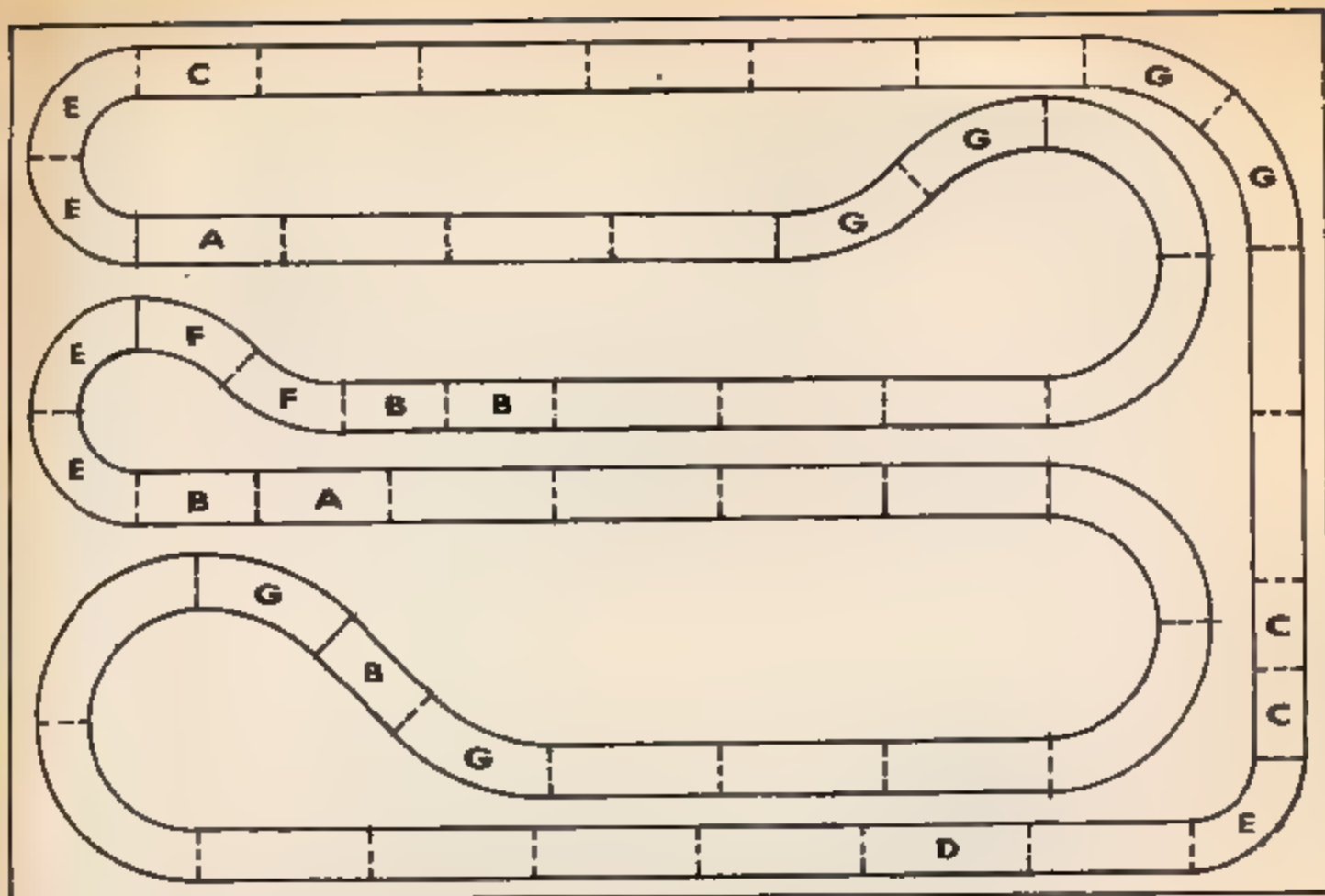
This month, we'll list all of the materials required and show you how to set up the framework and track supports.



Cut a sheet of 4' x 8' plywood to 4' x 6'. Most lumber yards will cut it to size for you for a nominal charge. Save the 2' x 4' section for use later in forming the supports for the curves.



Cut two six-foot long pieces of 2x4's to fit flush with the ends of the board. Nail them in place as shown.



Aurora Track required. All curves are $\frac{1}{4}$ 9" radius and all straights are 9" unless otherwise indicated by letters.

25 - 9" straight track

2 - 7" straight track (A)

4 - 6" straight track (B)

3 - 5" straight track (C)

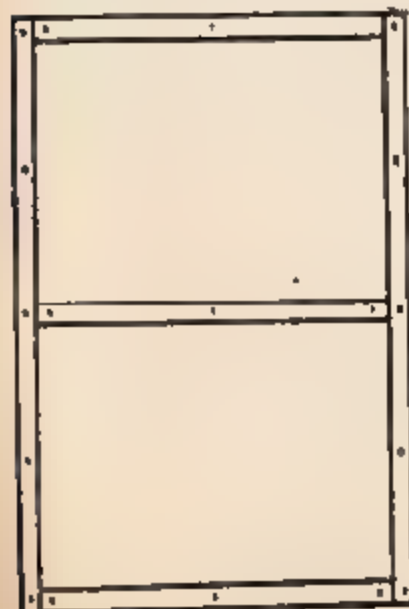
1 - 9" terminal track (D)

5 - 6" $\frac{1}{4}$ radius curves (E)

2 - 9" $\frac{1}{8}$ radius curves (F)

6 - 9" $\frac{1}{4}$ radius curves

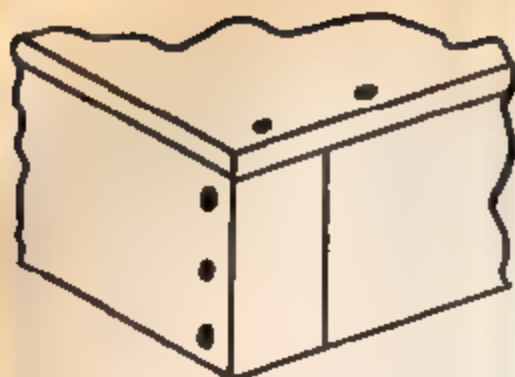
6 - 12" $\frac{1}{8}$ radius curves



Cut three 2x4's long enough to fit in between the first pair of 2x4's and nail them in place.

ITEMS NEEDED

- * 1 - 4' x 8' sheet of $\frac{1}{4}$ " thick shop grade plywood (cut to 4' x 6' and save the 2' x 4' piece left over)
- * Scrap plywood (for patchwork)
- * 24' of 2" x 4" (any grade)
- * 30' of 5" wide white pine $\frac{1}{2}$ " thick
- * 30' of 2" x 3" (any grade)
- * 1 pint bottle Elmer's Willhold glue
- * 1 lb 2" long nails
- * 1 lb 3" long nails
- * $\frac{1}{2}$ lb $\frac{1}{2}$ " brads
- * 5 doz No. 6 wood screws, ($\frac{1}{2}$ " long)
- * 3 doz No. 4 wood screws, ($\frac{1}{2}$ " long)
- * 4 - 36" sections HO gauge cork road bed.

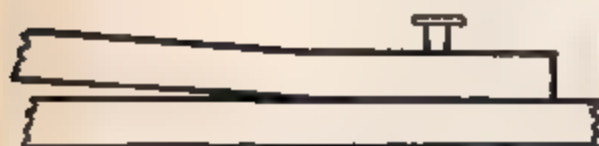


Nail the 2x4's together to form a strong structure



Lay out the entire track to ensure that you have enough pieces and they will fit as shown. Mark the location of each piece of track directly onto the plywood with a grease pencil. Be careful

and accurate when making these marks since they will locate the uprights to be installed later. Run on the track long enough to find out if you like it. Once it's built, it cannot be changed.



Start the first ramp by nailing the beginning directly to the table top.

Fig. "B" shows the various sizes of wood needed for each portion of the layout. Each piece is one inch wider than the track on each side and $\frac{1}{2}$ " thick. Dark areas indicate the location of uprights.

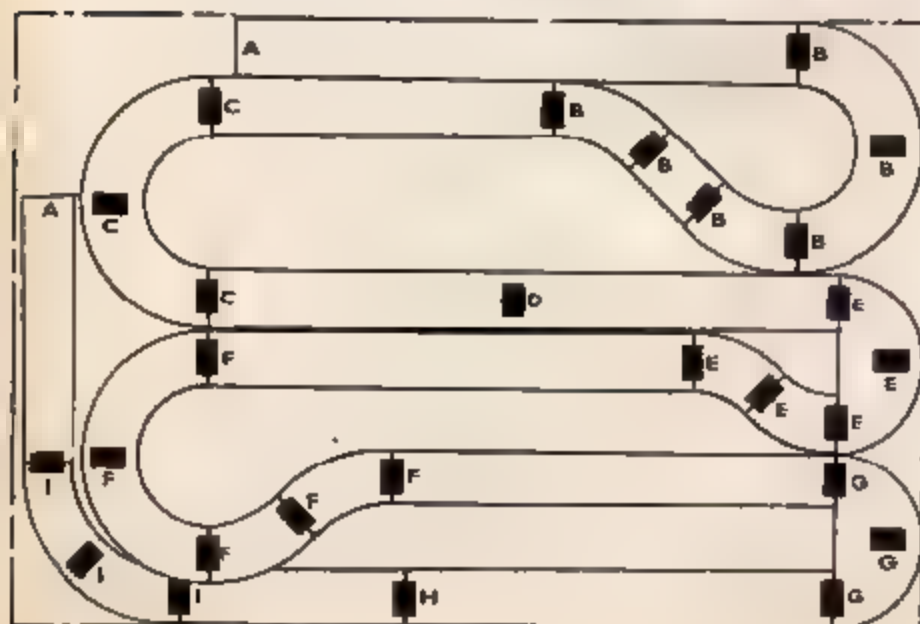


Fig B

Heights of uprights

- A - 0
- B - $2\frac{1}{4}$ "
- C - $3\frac{1}{4}$ "
- D - $4\frac{1}{2}$ "
- E - $5\frac{3}{4}$ "
- F - $6\frac{3}{4}$ "
- G - $8\frac{1}{2}$ "
- H - $5\frac{1}{2}$ "
- I - $2\frac{1}{2}$ "



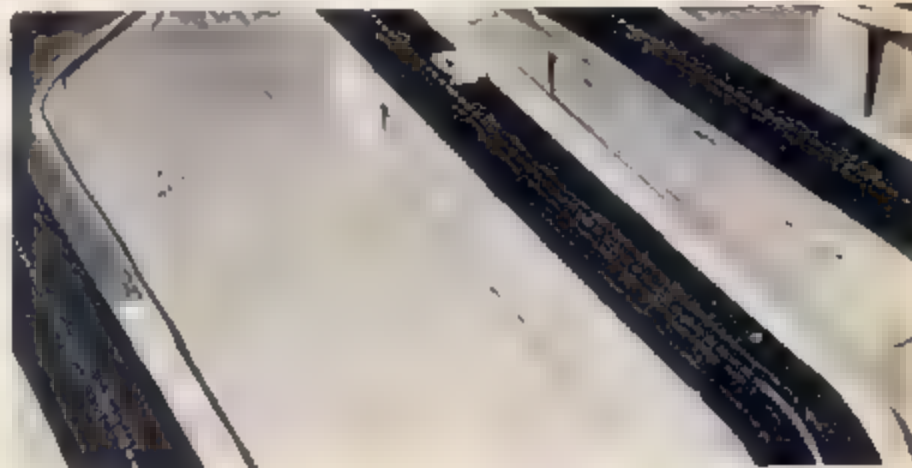
When gluing track supports to the uprights first apply glue to both surfaces then nail together



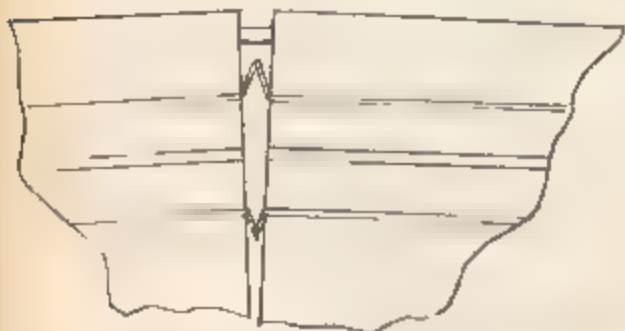
Apply glue to baseboard and upright. Press in place and weight down for at least two hours.



Temporarily screw each track section in place before continuing with another upright and baseboard. This will help prevent any deviation from the plans and allow you to check for any kinks at the joints.



Test run a car on the track after every five sections have been done. If the car skips or mysteriously jumps out of the slot check for uneven joints or a misalignment of track sections.



If each section is placed properly, the butt joint will be even. If not, the ends will form a wedge shape



When all of the track is down, temporarily lay in HO cork roadbed at each curve to form a skid apron. Thumbtacks can be used now but Elmer's glue will eventually keep them in place



Test run a car over the entire layout at speed. Have a friend watch the car to see if it runs smoothly over each joint. Run it through again, but much slower. If the car stops or hesitates, then check out that piece of track.

Next month we'll lay down the track permanently and start on the scenery.

MANUFACTURER'S PREVIEW

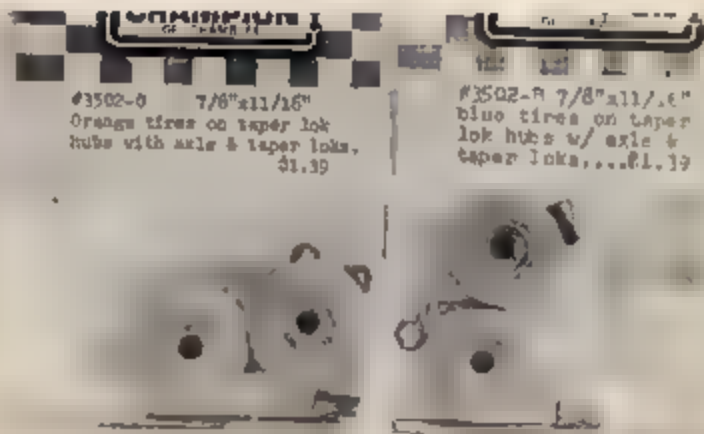
This month we're taking a look at some of Champion of Chamblee's newest 1/23 scale slot racing items. Your dealer can probably supply you with these new items. If not, order directly from Champion of Chamblee, 5620 New Peachtree Road, Dept. MCS, Chamblee, Ga. 30005.



1



2



3

- 1 Champion's No. 5502 MC case with super "LZ" Arco magnets and extra thin shim also has a silicone, stabilized gimbel bearing. The case is side vented. \$6.98.
- 2 \$1.49 gets you this Arco "TEK-CHEK" tool, which measures front and rear tire diameters and widths (3" width of tire track and 3-1/4" width of bodies and front wheel "SWR" plus 1/16" clearance). Approved for use at all races sanctioned by national championship committee under the 1969 National Championship Rules. Makes the job of inspection a lot easier.
- 3 Champion's No. 3502-0 orange tires (left) mounted on lightweight aluminum hubs with axle and "Taper-lok" hubs, \$1.39. The No. 3502-B (right) set consists of exactly the same equipment except in blue. Both sets measure 7/8" x 11/16".
- 4 Team Champion's jig wheels (no. 2801) are the actual width of front and rear hubs. Helps you build perfect frames every time. \$1.29.
- 5 No. 293-IL (left hand drive) and No. 29301 anglewinder brackets fits any 16-D type endbell, allows every gear ratio and tire combination. With new 1/4" oilite bearings and ball bearing tubing. 98 cents.
- 6 "ARCOLIGHT" axles are made of space age material which won't corrode, gum up or solder. Use for building, or as front axle. Two for 50 cents.
- 7 No. 396 vinyl front tires (3/4" diameter, 3/16" wide) are molded to the hub. 98 cents pair.
- 8 If you're all "thumbs," Champion's No. 293 nickel-plated, angle winder chassis with "Plumber" action cost just \$6.95. Saves a lot of work!
- 9 No. 2803 1-1/4" x .050" (thick drop arm is best for the popular "Jet Flag" 98 cents. No. 2803-1 guide flag (right) mounting plate mounts flush onto .050" or .047" plate for perfect fit for "Jet Flags." Just 15 cents.
- 10 Champion's new decals have fine register, good color and detail.
- 11 No. 5501-9 replaceable bearing is attached to bearing plate (left) Fits new "Orange Picker" endbells No. 5510, 5511, 5512. Also fits black phenolic endbell No. 5501-R and No. 5501 with a drilling operation. Just 39 cents. No. 293-24 thrust bearing and steel washers (right) eliminates friction and endplay in rear axle. 59 cents.
- 12 Team Champion's "ARCOLITE" No. 1173 Ford Talladega stock car body in 1/24 scale sells for just \$1.59.



4



5

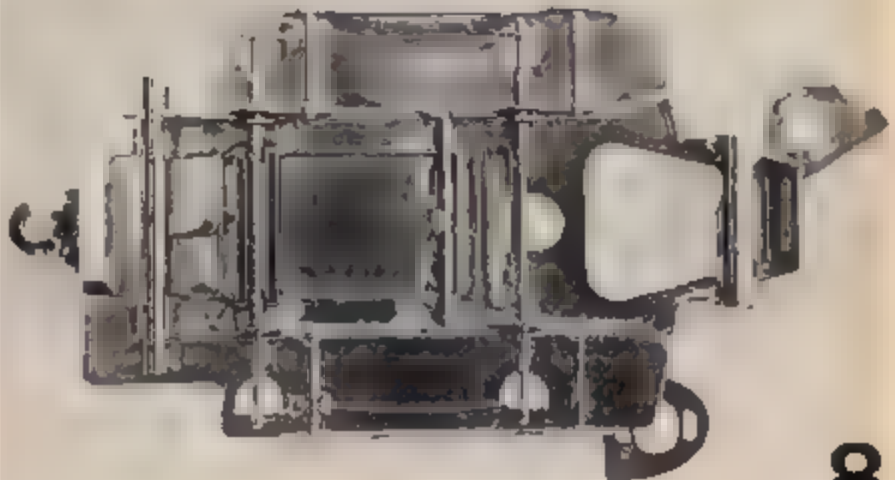


6



396 3/4 VINYL FRONT VIEW .980
3/6 WIDP VINYL 5 HOLDPO TO
NOT, NOT ADDD LATER

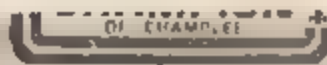
7



8



9



EXAMING 370
IF IT IS IN PLATE PITS
NEW 8 1/2 X 1 1/2 INCHES 05510
NEW 8 1/2 X 1 1/2 INCHES 05510
NEW 8 1/2 X 1 1/2 INCHES 05510
NEW 8 1/2 X 1 1/2 INCHES 05510



EXAMING 370
IF IT IS IN PLATE PITS
NEW 8 1/2 X 1 1/2 INCHES 05510
NEW 8 1/2 X 1 1/2 INCHES 05510
NEW 8 1/2 X 1 1/2 INCHES 05510
NEW 8 1/2 X 1 1/2 INCHES 05510

11



10



12



IT'S A GASSER

By Bill Neumann

Cox's magnificent gas-powered Dune Buggy is a real change-of-pace machine!

Every modeler likes a change of pace now and then, so if you're ready to do a little switching, take a look at the Cox Dune Buggy — it's 12 inches of excitement, action and sound.

Realistically modeled after its full-sized counterpart, the body is injection molded in a boss silver flake finish. You'll also find all the details: bucket seats, instruments, lights, wind-shield roll bar and an extractor exhaust system, with much of the goodies chrome plated.

The fun comes when you lay out an obstacle course in sand, a dirt lot, or even in your driveway. The soft vinyl semi-pneumatic tires with the wide

cross-ribbed treads carry the Dune Buggy over lots of tough terrain. A throttle control, adjustable steering and a low 40:1 gear ratio allow you to let the buggy run free for realistic action.

Power comes from the reliable Cox 049 engine, equipped with an easy starting recoil starter. The pull cord is made of braided wire for long-lasting

service. The engine is mounted to a die-cast aluminum enclosure to protect it from sand and dirt. And it's even got an oversized carburetor air cleaner for extra safety.

Next time you're at a hobby shop or toy store, be sure and take a look at the Cox Dune Buggy. You can't help but get the message to "bug out."

Die-cast aluminum engine mount fully encloses engine for protection and is mounted to high-impact styrene chassis. Wire ring at left of engine is throttle control and just in front of that is the needle valve and fuel filler tube. Recoil starter works just like the real thing, only braided wire is used in place of the rope for long trouble-free service. In an emergency, string may also be wrapped around front fan for starting.

22/Model Car Science

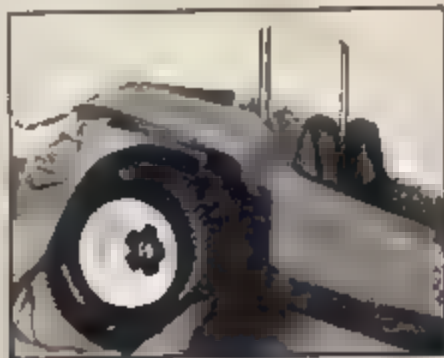


◆ Sand or dirt makes an ideal realistic setting for running the Cox Dune Buggy. It's also easy to make all types of obstacle courses for fun-action. The Cox Dune Buggy is realistically modeled after its full-sized counterpart. Notice the glossy metalflake finish and detailing so typical of Cox models.

Steerable front wheels allow you to set a pre-determined course and it goes where you set it. Engine mount is mostly covered by a realistic VW pulley cover and extractor exhaust system. The Cox Dune Buggy can be purchased separately which is the way to go if you have fuel and battery left over from other cars or planes, or complete with all the accessories shown: battery, fuel, hook-up wire, wrenches and fuel filter.



Soft vinyl semi-pneumatic tires carry the Dune Buggy over all kinds of stuff with traction to spare. Wide rear tires have deep cross ribs - ideal for sand.



Interior features bucket seats, instruments, steering wheel, stick shift and brake control. Clips just under roll bar latch down body after engine is started. Holding them in allows body to be lifted on its forward hinge.



THE "CLEAR ROOF" ROD

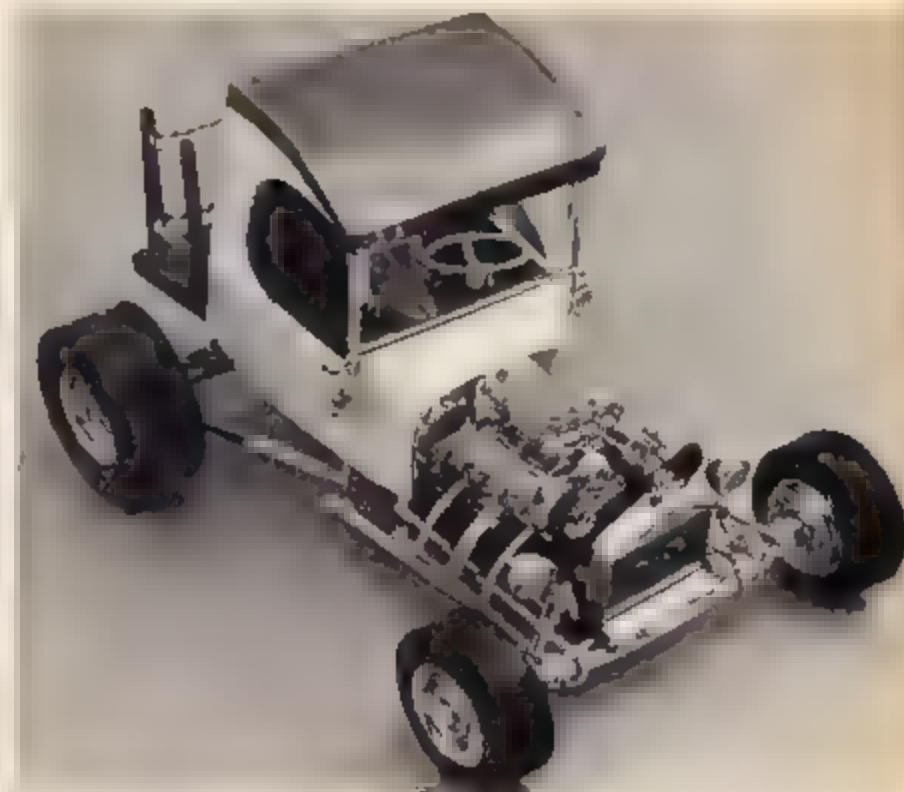
By Robert Schleicher

One of the most intriguing aspects of model car building is that you can copy or create show cars of just about any description from basic kit parts. The model kit makers have enough variety of engines, chassis, bodies and wheels among their vast array of kits to yield just about any part you want. Just as the builder of full size rods shops the junkyard for cars and pieces to build the "ultimate" rod, the modeler can shop his hobby dealer to pick out kits that have whatever parts he needs to make a truly individual rod or custom.

If you're shopping for particular models of real rod parts, like we were in building this car, you may have to buy four or five kits. If you want to think of it that way, a car like this can cost \$8 to \$10. You still have enough parts leftover, however, to build three or more complete cars. Avid model car builders will often accumulate dozens of partial kits in this manner. If you're one of those, you may well have a Pontiac engine, or a set of American mag wheels, or some of the other specific parts waiting in your own kit collection. There is no firm reason, either, why you must use exactly the same engine and wheels we did. Substitute whatever you wish for wheels, engine or truckbed. In this case, we tried to build as exact a duplicate as possible of a particular full-size rod, Doug Wachman's magnificent Model "T" truck. You can do exactly as we did or simply use the truck/rod idea to create your own design from whatever kits and parts suit your fancy.

Builders of real 'rods roam the junk yards in search of just the parts they need. A model rod-builder searches his hobby dealer's shelves. These four Monogram 1/24 scale kits, some sheet plastic, and clear plastic photo album mounts are needed to build a near-exact replica of Doug Wachman's real-life Model "T" truck/rod.

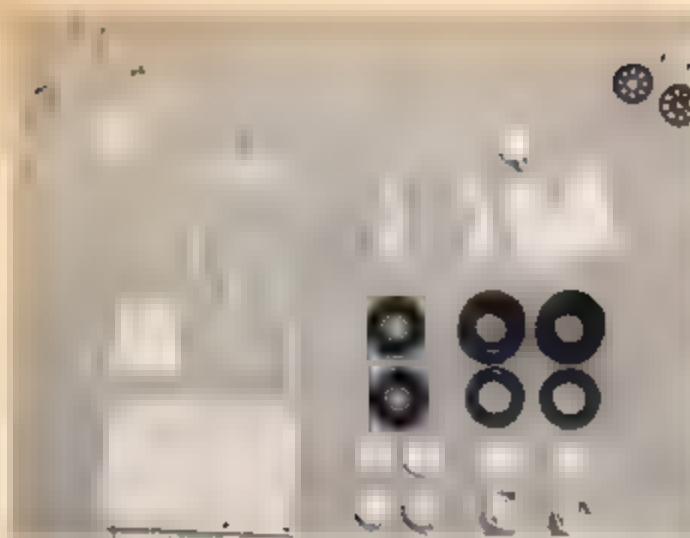
Doug Wachman's rod 'n truck is a one-off show-stopper. With no kit for the car the only solution is to put one together from various Monogram kits!



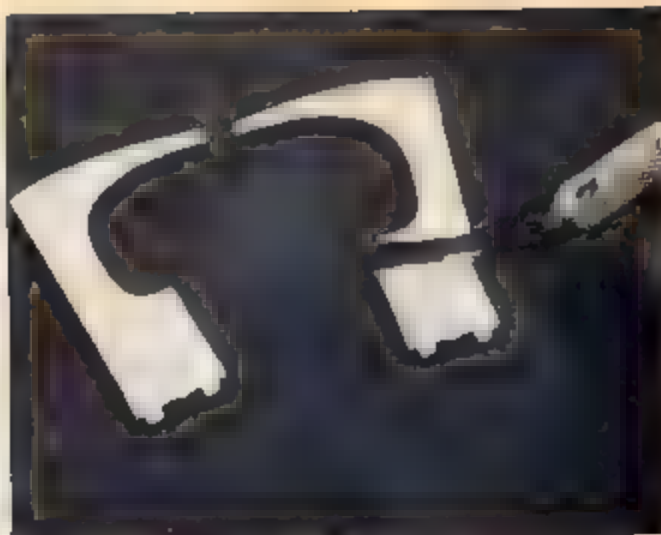
If you're considering the construction of Wachman's rod, or any other Model "T"-based design, we'd suggest you start with Monogram's "Little T" kit. This exactly-molded kit contains the same basic frame, front and rear suspension, and body that ALL such rods begin with. The kit even offers you a choice of the stock "T" rear deck, a short pickup bed, or an antique Ford race car gas tank. Given a

basic chassis that is correct, and that fits together beautifully, you can replace the engine or wheels with items of your choice from other kits. The body in the "Little T" is dead-accurate as well, and a perfect place to start for chopping or converting into a truck as we did. Again, this is about the same approach a builder of a full-size rod will take - start with the basic "T" and let your imagination GO!

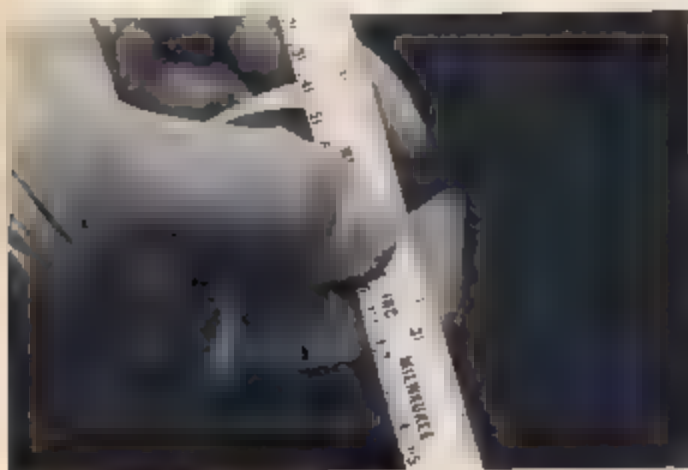




Most of the chassis and engine parts are from the Little "T" kit, with air cleaner and heads from the Hurst Harry Olds, wire wheels from the 1934 Ford, and the cab, wheels, tires and truck bed made from Beer Wagon kit parts.



Top of Beer Wagon's cab is sliced to match the contour of the upper edge on the Little "T" body.



Body sides are held in place while a straight edge marks where to chop rear of the roadster body piece.



Back side of truck body is cut from Plastruct brand .030 inch sheet plastic to match the shape of roadster body.



Rear of interior is cut off to fit the chopped body, the side flanges cut away, and interior glued inside body.



New side and rear panels of body are test-fitted, interior installed, and new body panels glued in place.



The .030 inch thick plastic is cut into 1/16 inch wide strips with a sharp hobby knife and glued into the lattice roof pattern.



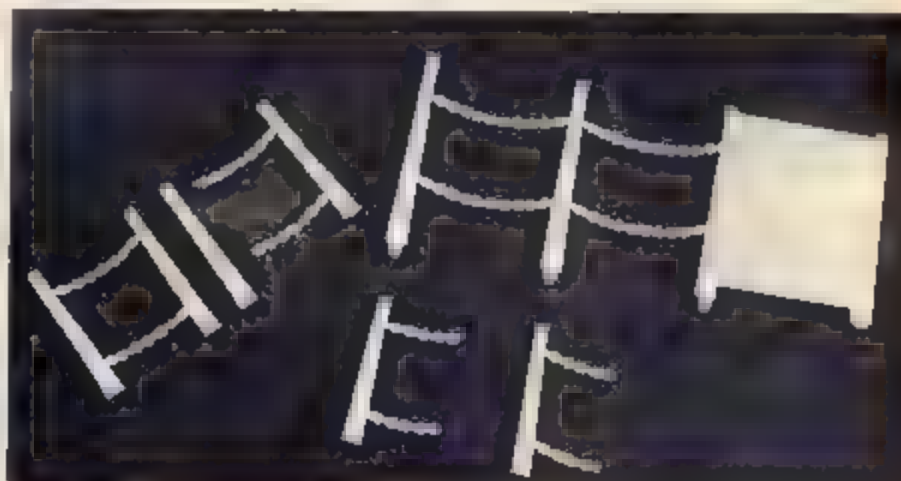
Side roof molding is cut to match roof curvature, with 1/8 inch wide front and rear pieces cut from the .030 inch plastic. The lattice bracing piece is curved to match the roof after lattice's glue joints dry.



Floor of the Model "T" truck bed must be cut from one edge of the Beer Wagon's bed to retain wood grain texture.



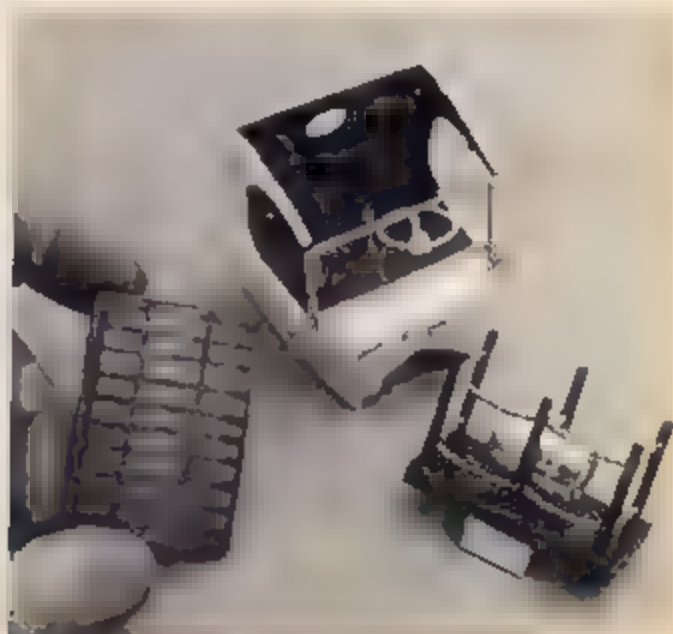
A 1/8 inch wide strip of .030 inch plastic is used for frame around bed, with vee-grooves filed into backside so plastic will fold



Beer Wagon's rear tailgate (left) is cut apart as shown and one side gate (bottom) cut apart to use on tiny "T" truck bed.



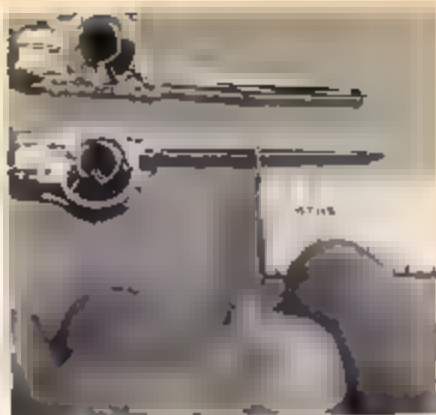
Much-shortened and narrowed Beer Wagon truck bed is used on this roadster, with gas tank from Beer Wagon mounted on top.



Contact cement is needed to glue clear plastic cover over lattice-like top. A thin coat of orange lacquer "tints" top.



Little "T" frame is shortened 3/4 inch by cutting a segment from each side of rails, then gluing the ends together again.



Drive shaft is only shortened 1/2 inch. Little "T" engine block must be assembled so crank pulley just clears front of chassis.



The last 3/8 inch of each Little "T" header must be removed. Winged caps on the ends of headers will be used on front wheels.



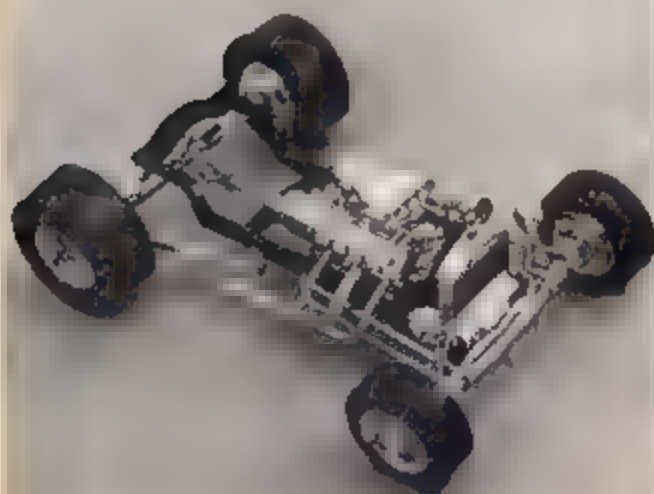
Centers of outer wheels halves, from '34 Ford kit, are cut as indicated, then painted bright silver



Header caps, wire wheel inserts and front wheels from Beer Wagon are combined to make copies of famous 1953 Buick Skylark's bolt-on wire wheels, seen on real rod.



Little "T" Chevy engine is converted into a Pontiac with heads and valve covers from Hurst Hairy Olds 'Olds blower end was used to simulate stock Pontiac carb between Little "T" manifold and 'Olds air intake chamber



Hurst Hairy Olds wheels are glued to Little "T" brakes. Basic chassis and suspension are stock Little "T" kit



Rear wheel outers are from Monogram's T-Rantula kit. Completed model is a 1/24 scale copy of the full-scale car; right down to the correct wheel styles!

THE AMERICAN COLLECTOR

By David Sinclair

Ever since the wonderful 1/43 scale Rio cars for collectors first became available in the United States, six years ago, collectors recognizing the superior craftsmanship of this Italian firm have been requesting that they do an American classic. Finally heeding the demand, Rio selected probably the best-known classic of all — the 1941 Lincoln Continental V-12, and we predict it will be the greatest sales success of any 1/43 scale collectors car ever in the American market. And we hope it will meet with equal success in the European market, as well, so Rio will be encouraged to try other American cars in the future.

I recently received advance samples of the Continental and hopefully by the time this article appears it will be available in quantity for the thousands of enthusiasts who will be sure to want it. The overall appearance is very good. Rio's scale and proportions never leave anything to be desired. Beginning in the front, the bumper looks authentic, solid bar on each side, thin split rails form the center piece. The grille, while shaped correctly, looks a bit heavy and of course is all chrome. Flat black lines painted to define the grille bars would improve the appearance if you have a steady hand and a hair-line brush. The radiator ornament is there, and while not perfect, is representative. But the chrome strip over the nose is a bit too heavy. Headlights have the large chrome trim rings used on the 1941 and the parking light are mounted above

Windshield frame is painted, not chromed, which is correct, and the vent windows, but no "glass," is mounted in doors that open. Front fenders are not quite rounded enough at headlights and the shape of the wheel cover on rear fender is more like the '42 than '41 model, but expose just a third of the tire as did the original. So we can't be too "picky," for the overall appearance is about as perfect as you can expect in this small scale. On the top-up version, the white top is of a canvas looking plastic with

glazed rear window and even the zipper drop panel is indicated in the top.

From the rear it has the authentic Continental look. Big trunk, spare with metal cover, license plate, and you can even make out the gas filler door. Rio didn't use spring suspension on this one but the under carriage is very well detailed.

The hood is hinged, and on the underside two long chrome horns are mounted and rise with the hood. The V-12 engine is a bit of a disappointment, for it seems much too small for this car. But this, and the fact that the seats are set too far forward, are the only major faults to be found in my opinion.

Top-up version (Rio No. 43) is a rich dark blue with white top, top down (Rio No. 44) is medium grey with black top and red upholstery. Both have good white sidewall tires.

Another review sample arrived from Rio with the Lincoln, this a 1929 Lancia "Dilambda" V-8 touring car. One of the Italian cars with great prestige, the Lancia were also known for their durability. This model has a long hood, two of the four doors open, painted wire wheels with chrome knock-off hubs, two spares mounted on rear. Front seat, steering wheel, brake and gear shift are all good, but you'd have to be exceedingly long-legged to sit comfortably in that rear seat!

The Lancia touring car (Rio No. 42) is all red with white top. Although we didn't receive a sample it will also be available in a closed four-door sedan version (Rio No. 41) which, according to Rio's literature, will be green with black top section and wheels with spares mounted in fender wells instead of at the rear as in No. 42. A welcome addition to the all too few models of cars of the "Twenties."

Dugu sends an interesting Rolls Royce drop-head convertible (Dugu No. 21) which they identify on the box as a "Silver Ghost 1933," but you'll agree it's obviously a Phantom II (How do they manage such gross

errors in their research department?) It's a huge model loaded with detail: headlights; single driving light mounted between and below headlights; parking lights; good "Flying Lady" radiator ornament, twin spot lights (all with lenses), chrome door handles; tail lights with red lenses; double R insignia on radiator and hub caps; license plates front and rear; wire wheels, transmission and exhaust pipe. Oh yes, Dugu tries hard, but somehow they just can't match Rio for authenticity and near perfect scale. The most obvious fault of this otherwise well-done model is the height of roof and windshield. Remember how kids used to chop tops so they had but a few inches of glass to peer out of and had to sit on the floor to avoid hitting their head on the top of their modified Detroit iron? Well perhaps a Rolls or two was modified like that but, I feel Dugu would have been better advised to have followed a more standard design.

Last year Dugu introduced a model which had long been awaited by the U.S. collector, the 1937 Cord Phaeton. Unfortunately, Dugu's packing was not adequate to prevent damage to the fragile bumpers and over half the models arrived from Italy in imperfect condition. As a result many collectors were disappointed when they couldn't get delivery of this model. Dugu now claims they have improved their package to eliminate this and shipments are coming through again. The Cord is fairly good. Bumpers are authentic looking, overall design good but no indication of the headlights which were probably the first that "closed their eyes" in the daytime. Two flexible exhausts emanate from either side of the hood, and being made of coil wires, they look real. The hood lifts off, not hinged, and inside it's crammed with good engine detail — air cleaners, twin horns, etc. Under the chassis you'll even find a radio antenna of the type often used in those days before present day wands came into being. Chrome frames on windshield and win-

dows is a good deal too bulky (Rio often has same fault). The rear end sits a bit too high and no spring suspension, but all-in-all it's a model you'll want, despite its small faults. Top up (Dugu No. 18), top down (Dugu No. 20) both in either orange or green.

Also from Dugu another addition to that all-to-small list of cars of the "Twenties." This, the 1924 Fiat "509" sedan (Dugu No. 14). All five windows plus the huge windshield are glazed. Sample was in maroon with black top and fenders with spare, license plate and radiator ornament. Comes in plastic display case. And from their Museo series, the 1914 Lancia Theta limousine (Dugu No. 11-M) bigger but half the price of the "509" (don't understand the pricing either except it's all plastic). This Lancia's a nice model in red with black top and fenders, spare tire, without wheel mounted on running board, glazed windows, and luggage rack.

I'm delighted to announce the creation of a new monthly newspaper for serious collectors. It's called *Miniature Car Collector*. It's a big paper, size-wise, 11-1/4" x 15-1/2" high, and contains eight photo-packed, highly informative pages. The large photos are excellent, printed on fine quality paper, far better than the average newspaper. I'm happy to say that I've been asked to contribute heavily to this paper, along with other internationally known collectors. The publication will be devoted exclusively to "our" type of model cars (you'll find NO slot cars, "funny cars," etc.), with interesting articles each month by guest columnists, reports on new model releases, in-depth histories of well-known (and not-so-well-known) marques, etc. If you're serious about collecting, you'll want to subscribe to this fine newspaper. The cost is \$6.00 per year for 12 issues, or \$11.00 for two years (24 issues), \$15.00 for three years (36 issues). Send a check or money order, plus your full name and address (don't forget the zip code) to: Pacific Publishing Group, P.O. Box 1821, Thousand Oaks, California 91360. There's no delay in receiving your first issue, it will arrive within a few days after you send your subscription in. We've needed a paper of this sort for a long time. Don't waste a minute subscribe now!



FIAT "509"



LANCIA THETA



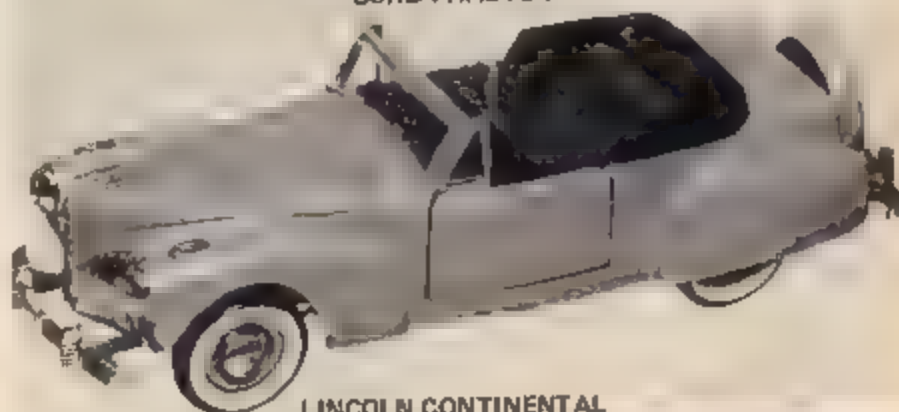
LANCIA DILAMBDA



ROLLS ROYCE PHANTOM II



CORD PHAETON



LINCOLN CONTINENTAL

LINCOLN CONTINENTAL 1941
LANCIA DILAMBDA V-8
ROLLS ROYCE PHANTOM II
CORD PHAETON 1937
FIAT "509" SEDAN 1924
LANCIA THETA 1914

RIO 43 & 44
RIO 41 & 42
DUGU 21
DUGU 18 & 20
DUGU 14
DUGU 11-M

Metal/Plastic ****
Metal/Plastic ****
Metal/Plastic ***
Metal/Plastic ***
Metal/Plastic ***
Plastic ***



FUEL LINES FOR FUNNY CARS

The insane tangle of fuel
and electrical lines
can place your models
in the contest-winning class.

The kits you see on your dealer's shelves today are often-as-not accurately-reduced miniatures of actual racing cars. Somehow, a model of one of the out-and-out racing cars adds a bit more excitement to your shelf than customized street car. One of the sources of this excitement is, of course, the fact that these 1/25 scale kits are fully-detailed miniatures. The body of the model has the same shape as the real car, with decals to spell out the billboard-like logos that identify the owner and sponsors of a current racing car.

MPC's kit for Charlie Allen's "Saddleback" Dodge Dart is but one example. MPC has turned its designers' talents to producing a full collection of the more famous drag and road-racing cars. The interesting fact about these miniatures of real racers is that each contains dozens of details not normally found in kits selling for less than \$2.00.

Like MPC's kit for the Landy Dodge Charger, Eliminator Cougar, Malco Mustang, etc., the "Saddleback" Dart features a fully-detailed chassis, engine and interior to match the body. As interesting as these cars are on-the-surface, the real excitement appears when the bodies are hinged up to reveal the life-like racing chassis beneath.

Each of MPC's racing car kits offers the modeler in search of something with super-realism the chance to build a real contest-quality miniature. Each kit provides easy-to-fit-together pieces that make the assembly of the complex chassis and engine a simple task. Any builder of one of these kits is virtually assured a well-detailed model. For something a bit better than kit-stock, the experienced modeler is going to have to add a bit of detail to the kit. With all of the "hardware" molded into the plastic pieces, about the only details lacking are the fuel and electrical lines and cables so obvious on the real cars.

At first glance the dozens of lines and wires seem too complex to even attempt on a model. Most builders just ignore all but, perhaps, the spark plug cables. The ones who copy most of the other lines and cables are the ones who usually win the contests. The "secret" to duplicating these various pieces of hose, wire and cable is to isolate the fuel system from the high tension (spark plug, distributor, etc.) wiring system. Taken one at a time, it is relatively easy to trace the paths of, say, the fuel lines, as they travel from tank to pump to the injector or carburetor. The fuel line system used with fuel injected and supercharged engines is the most complex of all but even it is easy to duplicate if you just follow the paths of the lines as they pass from the injector pump to the supercharger's intake and exhaust manifolds.

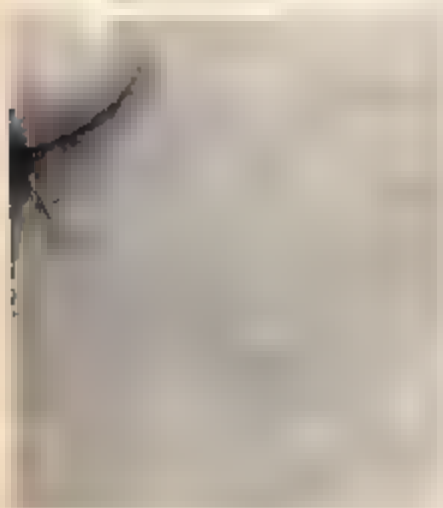
The photos and captions define the procedure used in adding the fuel lines to the "Saddleback" Dart's blown-and-injected Dodge 426 Hemi. The missing lines and cables are one of the first "en ans" you'll note in a photo of a model-trying-to-look-real. Adding at least these fuel lines to your 1/25 scale engines will take them just one step closer to real-life.



Assemble the basic engine block and transmission from the "Saddleback" kit, leaving chrome parts off until later.



The fuel lines from the fuel tank to the fuel pump to the injector pump are the shielded-type. Use No. 14, No. 16, or No. 18 wire.



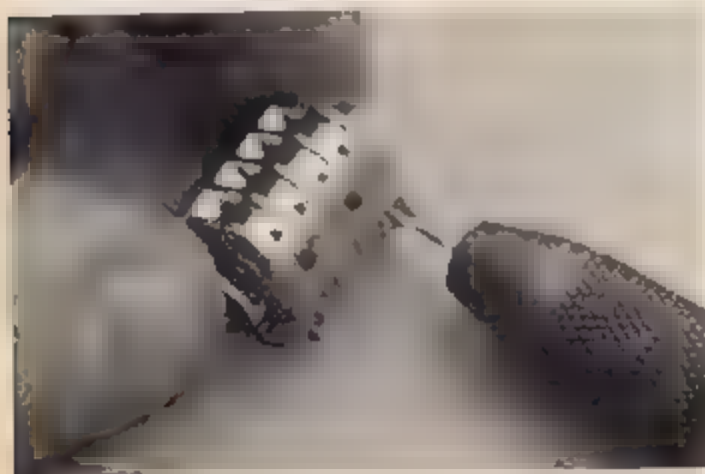
Separate the No. 14, No. 16 or No. 18 wire into individual strands. Try to find the silver-colored wire at an electronics shop.



Seven-stranded, No. 18 gauge wire is twisted tightly and evenly to a diameter about equal to a pin (left). This is fine for most fuel lines. Center wire has only three strands twisted together



for use as a tachometer cable. Two No. 18 gauge wires are twisted together (right) to make a 14-stranded wire that is about right for a 1/25 scale version of a shielded oil hose or water hose.



Black nylon thread is used to duplicate the plastic-covered fuel lines near the supercharger. Drill eight No. 69-sized holes, four on each top side of the blower.



Drill eight more No. 69-size holes in the intake manifold sides as shown. Fuel is injected into both blower and manifold.



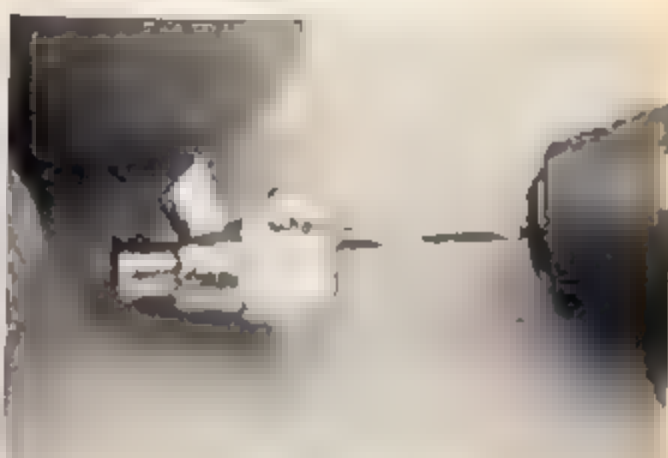
Drill a No. 63-size hole through the top and another through the side of the fuel pump to fit the seven-stranded wire.



Drill two No. 63-size holes in the side of the fuel tank to fit the seven-stranded wire (fuel line) for intake and overflow.



Current blown engines use hydraulic operated valves to deliver fuel to the injector's distributor blocks. A close copy of one, in 1/25 scale, can be cut from a duplicate "Saddleback" front axle. Trim from sprue, just as shown, then cut spindle end from axle. Axle mount for kit part No. 14 (tie rod) is also cut away as a separate piece to be used as a 1/25 scale fuel distributing block.



Drill two No. 63 holes in the end of the cutoff spindle, one hole in the angled leg, and one in the left leg of part.



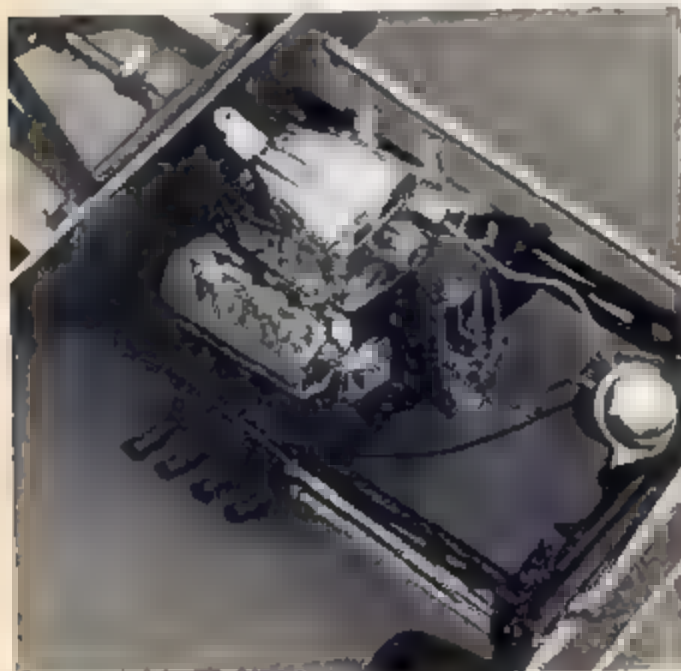
Cut off a 1/8"-size cube of scrap plastic and drill five No. 69-size holes through one side. Loop four pieces of black nylon thread through four of these holes, with each end of the thread fitted into the holes drilled in the intake manifold.

32/Model Car Science

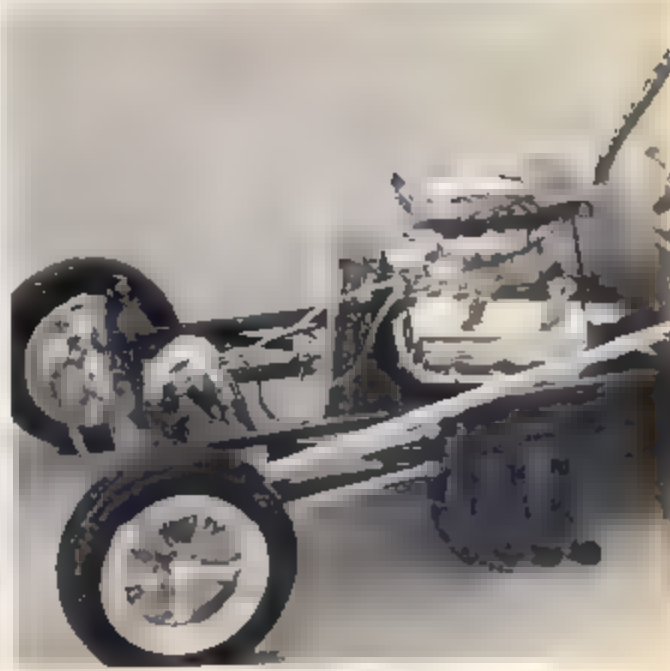


Drill five more No. 69 holes in the tie-rod mount (cut from the front axle) and loop thread through these to eight blower holes.

All of the engine chrome and painted pieces can now be assembled. Fuel valve (from axle spindle end on model) is glued to side of blower. The seven-stranded wire leads from fuel pump to lower hole in fuel valve. Line from upper hole is overflow return to fuel tank. Black nylon thread serves as fuel lines from rear of fuel valve to distributor blocks on manifold and blower. Black nylon thread from lower fuel block to fuel tank is another overflow return.

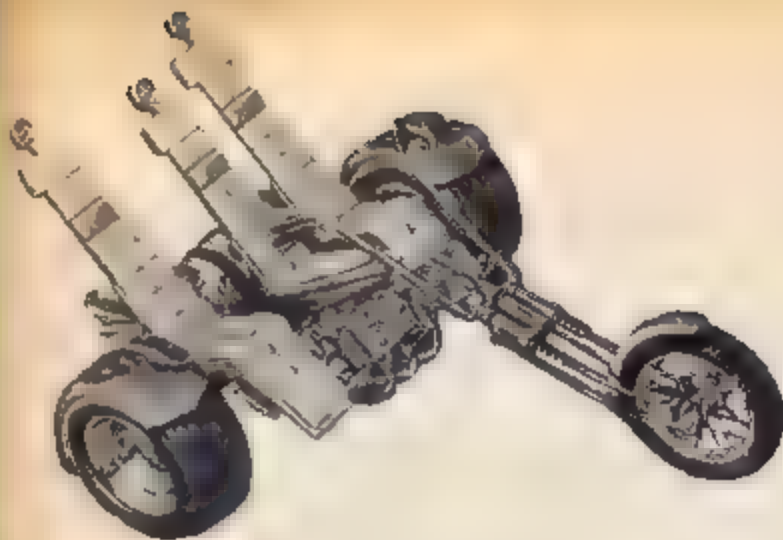


Glue the engine, complete with fuel lines, into the chassis along with fuel tank. Connect the three fuel lines to the tank. The various wires from the magneto to the spark plugs are a simple addition left off, here, so they will not be confused with the fuel lines.



With the body propped in the "maintenance" position, the detailed-with-fuel lines engine is clearly visible in chassis. Photos of full-size "Saddleback" reveal location of the fuel lines we have fitted as well as the other electrical lines and driver control cables. The chassis frame is red and the engine block black on this "funny."





ZINGER!

3 + 3 CHOPPER IN BIG 1/12 SCALE! Harry Bradley has designed the chopper of all choppers! Three seats . . . three wheels! Plus the wild Kawasaki three cylinder engine! Plus aircraft type rear tires. Plus soft thermo plastic seats. Plus steerable front wheel. Plus the most advanced styling on three wheels ever! In one word: ZINGER!

POPPER!

THE POP CORN WAGON IN SUPER SIZE 1/20 SCALE! Carl Casper's great new show stopper! The wildest he's ever done! And it's all in the kit! Brass-plated parts. Chrome plated parts. A double-blown 426 Hemi engine. Opening rear window. The authentic antique pop corn popper. Giant slicks. Custom parts from front to rear. Super detailed super-chassis! In one word: POPPER!



SWINGER!

RAIDERS COACH IN 1/26 SCALE! George Barris has done it like never ever before! Get this: Built for Paul Revere and the Raiders, this hummer has two GTO engines up front supplying all the horses, more stacks than a factory, a stage coach body, six tires with giant mudgers at the rear, GTO front section, amplifiers and scale figures of the Raiders! In one word: SWINGER!



Four great new kits! Build them . . . describe them! In one word. Send that word to us. We want to hear from you. We'll send you our complete kit catalog in return. Make it an "In" word . . . make it your own word . . . make it one word. Send your word to:
One Word, Dept. F, MPC, 126 Groesbeck Highway, Mount Clemens, Michigan.

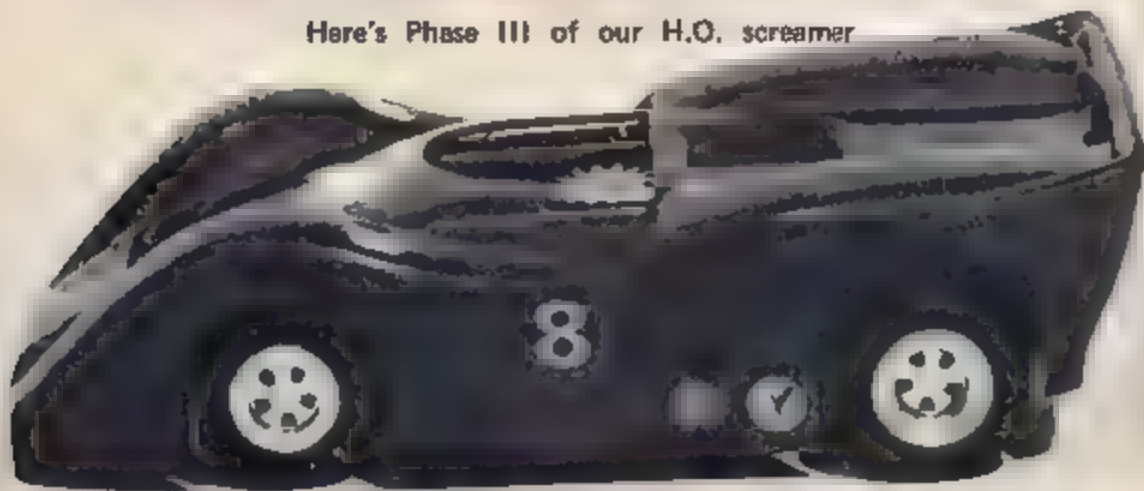


THE ONE WORD IN MODEL KITS!

MODEL PRODUCTS CORPORATION, MOUNT CLEMENS, MICHIGAN 48043

THE "TROPHY COLLECTOR"

Here's Phase III of our H.O. screamer



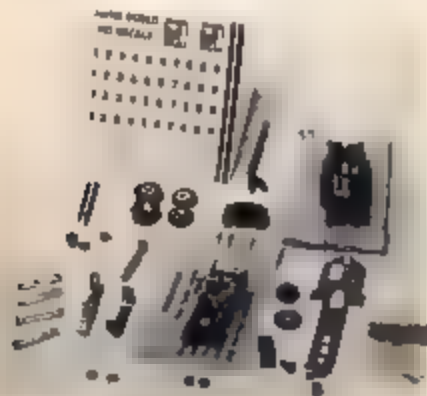
The new rash of HO speed equipment really fascinates us. It almost isn't worth while to scratch-build a car anymore. We decided to build the Phase III car using only commercially available speed equipment instead of making our own. However, the Phase IV car will be almost entirely scratch built. All of our tests are being run on the new Ridgeroute Raceway.

"Ridgeroute" is ideal for testing cars because of the many steep hills, sharp esses, long straights, and its almost vertical downhill straight. It's remarkable that even a car such as this Phase III car with its rewound armature won't overheat after several rugged laps.

It is much easier and far less costly to purchase the items needed for Phase III rather than stripping a complete car. The items needed are:

Aurora chassis No. TJ8329
Aurora crown gear No. TJ8322
Aurora idler gear No. TJ8319
Aurora idler rear retaining clip No. TJ8326
Aurora pick-up springs No. TJ8314
Champion guide pin No. 0011-C
Champion brass pan No. 005-A or LaGanke brass pan No. 320

LaGanke silver plated pick-ups w/pg tails No. 231
LaGanke Tiger Mags No. 310
LaGanke brass wheel spacers
LaGanke Wrench No. 3190
LaGanke silver brushes No. 170
LaGanke rewound armature on gear plate No. 270-A
A.J.'s No. TK 110 rear wheels (silicone)
A.J.'s No. TK 310 front wheels
Auto World No. AW16 decal sheet
Auto World HO driver figure
Lanier clear plastic Can Am body



It is much easier and far less costly to purchase the items needed for Phase III rather than stripping a complete car. The items needed are:

36/Model Car Science



Cut out the sides of the chassis just in front of the magnet retaining lugs.



Press the brush springs further into their holes to increase the pressure of the brush against the commutator.



Carve a notch into each brush with a swedish file to prevent brush rotation.



Install the stock brush springs and pick-up arms.



Solder the pigtails to the stationary brass segment of each pick-up. Remove the iron from the work surface immediately after the solder begins to flow to prevent melting the plastic chassis.



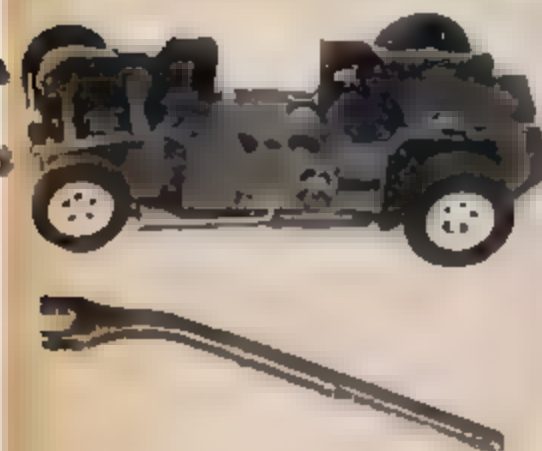
Hold the crown gear in place while pushing the threaded axle through. Measure the distance that the axle protrudes on each side and adjust it to make it even.



Add axle spacers and loosely thread on one of the 0-80 nuts.



Thread the rear wheel on and tighten the jam nut against it



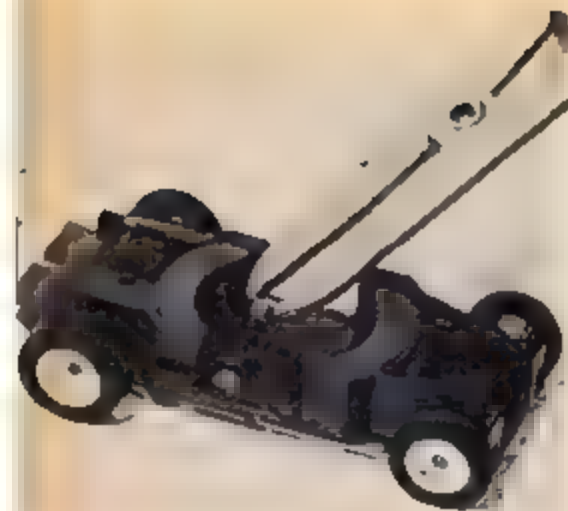
Check the wheel base of the car you'll be using before installing the front wheels.



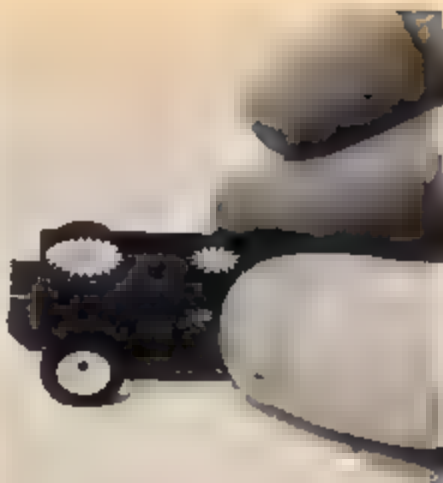
Slip the hi-density "Tiger Mags" into their slots. If the car runs in the wrong direction, swap the magnet position.



Press as many spacers behind the magnet as needed to keep it from rattling and to space it in closer to the armature.



Insert the brushes with the slotted side against the brush spring.



Apply a DROP of oil to the armature shaft hole and install the gear plate assembly



File the idler gear to $\frac{1}{4}$ its original width and drill several lightening holes in it to reduce the friction and reciprocating weight.



Apply one drop of oil to the idler gear shaft and install the gear.



Bend the retaining clip in slightly at the center and snap in place.



Screw the pan chassis and flag to Lancer's body mounts with the screws provided, *not* with self tapping screws.



Cut the body along the trim lines. Install all of the decals in place from the inside of the body. Solvaset will help the decal form itself around the contours of the body. Liberally coat each decal with clear enamel or Rumcoat.

38/Model Car Science

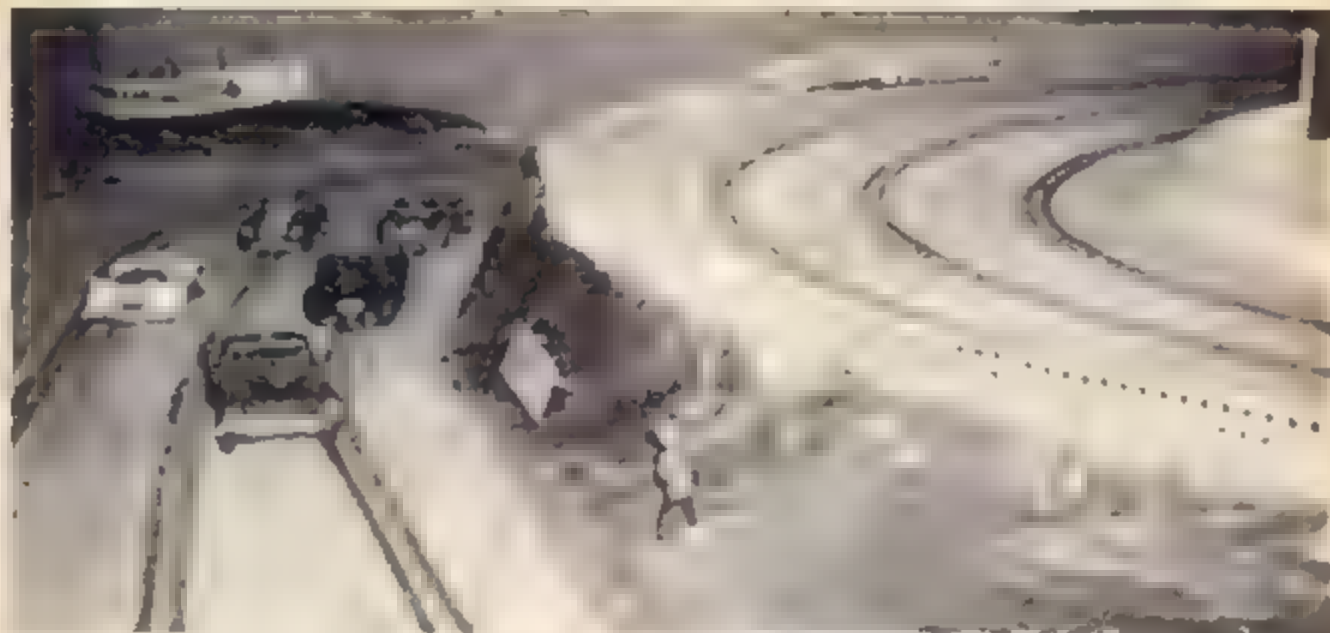


Paint the body from the inside with one of the paints designed for slot car bodies. Enamel will only chip off and lacquer tends to curl a body.

Snap the body over the body mounts. It may be necessary to use a dab of contact cement on each mount. Since this is an article on chassis mods, we didn't show all of the detailing possible on this type of body

The Home Layout of the Month

Enter this new contest for 1/32 and 1/24 scale home tracks and win a one year subscription to MCS!



The winner of this month's one year subscription to *Model Car Science* for the best home layout is Don Westgate, 74 Christina Cr., Scarborough, Ontario, Canada

Don Westgate's beautiful three-lane, 42' home track is the subject of this month's 'Home Layout of the Month' contest. It takes up a space 6-1/2' x 11 1/2' and is supported by six legs. These are bolted to a framework of bracing, topped by plywood sheeting. Over the sheeting is placed the actual track surface. Don didn't mention what type of material the track surface is, but we suspect particle board, probably 3/8" thick. Slots are hand routed. The edges of the table are finished off with plywood panels.

The control panel has a built in test track, voltmeter and radio. The flick of a switch turns on two yellow lights on the course, to warn drivers that a car has spun.

Power to the track comes from a 12 volt car battery, but Don plans to replace it with an M.R.C. two-amp transformer.

All buildings are hand-made, except for the Monogram grandstand on the back straight. More spectators, pit crews, etc., will be added later. The pace car is a Shelby G.T. 500, built from a Revell 1/32 Mustang. It is usually parked in the paddock.

A good lap time is 5.3 seconds, turned by a stock Cox 1/32 scale ready-to-run Ferrari.

Beautiful track, Don. Your one year subscription to MCS is on the way.

You can win this contest too! Take good clear black and white photo (or two) of your home track (this contest is for 1/32 and 1/24 tracks only; if you want to enter an H.O. scale track, enter through "Small Stuff," elsewhere in this issue) and send it to: The Contest Editor, Dept. H., *Model Car Science*, 131 Barrington Place, Los Angeles, California 90049. He'll pick the winning layout each month.

Get with it, and good luck!



Model of the Month

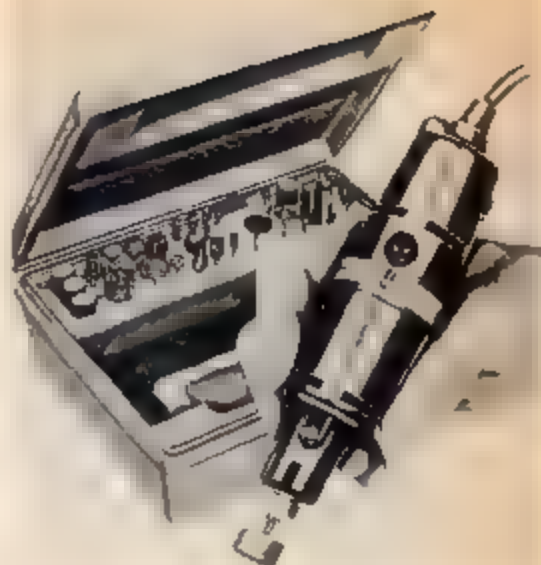
HOW TO ENTER

You can win this superb Dremel Moto-Tool kit if your car takes first place in our contest! Simply send a few sharp black and white photos (no color shots please) of your best car, along with a description of what you've done to it. Be specific when mentioning the parts you used, as other readers are interested. Send your photos and description, plus your full

name and address to: "Brick" Price, Contest Editor, 11796 Gateway Blvd., No. 3 Los Angeles, California 90064. Sorry, no prizes for other than first place, except the pride you'll feel when you see your car in the pages of MCS!

HERE'S WHAT YOU CAN WIN!

The first place winner of our Model of the Month contest receives this fantastic Dremel No. 261 Moto-Tool kit — a \$32.95 value! The kit contains the following: Powerful No. 260 Moto-Tool 34 accessories including high speed steel cutters, grinding wheels, wire and bristle brushes, rubber polishing tip, sanding discs, drum sander and sanding bands, mandrels, dressing stone, finger grip extension, collet wrench and 1/8", 3/32", 1/16" and 1/32" collets, all in a molded polyethylene storage case! A magnificent lifetime tool set that is perfect for model



The winner of this month's Dremel Moto-Tool is this wild styled custom by Fred Hogue, 903 Third Avenue, Croydon, Pennsylvania, 19020.

A lot of putty, parts and patience went into the construction of the body. It originally started out as a 1963 Pontiac hardtop. The rear end came from a Mercury kit with tail lights from MPC's '69 'Vette. The 427 engine and chassis with its steerable wheels came from the same kit. The clean looking greenhouse is a reworked Dodge Deora roof.

Detailing abounds throughout Fred's car, including the nicest interior, chassis and engine compartment that we've seen in quite a while.

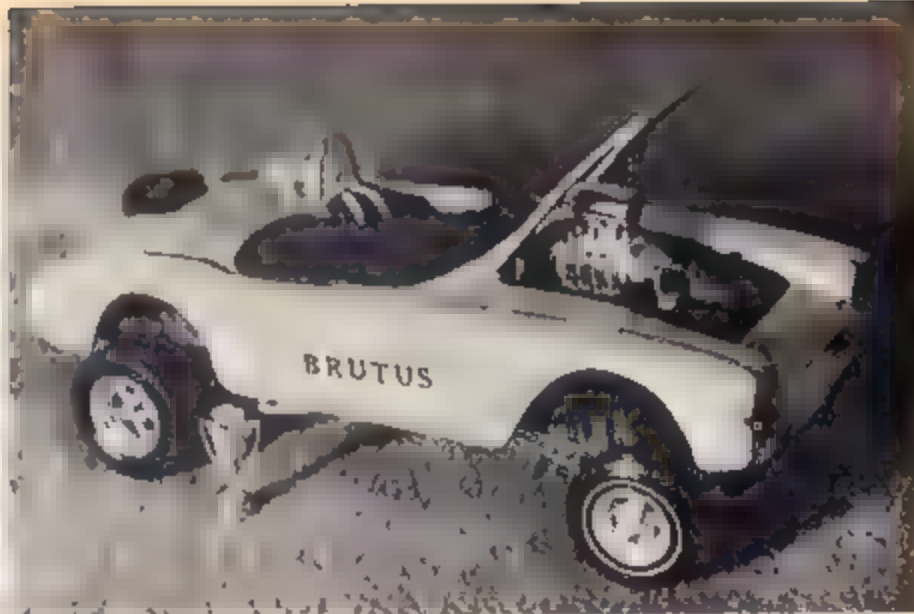






David Faeling of Chiltonville, Ohio, showed a lot of originality and thought in his construction of the "Centaur"

The rear half of the body is AMT's '68 Mustang while the front half is from MPC's Mako Shark kit. The window posts were made from scrap plastic. A Camaro frame was chopped 1/8" and modified to accept a Corvair engine. The body was painted with gold leaf and clear paint. *Very nice Dave*



Ron Thyen of Winnipeg, Montreal, Canada, used MPC's 1960 Corvette as the basis for his M/SP Gasser. The chassis, moon tank and bucket seat came from Revell's '53 Studebaker. Detailing includes gas lines, battery cables, plug wires, and rip-cord. The name, "Brutus," was installed with black Letraset letters. The finish coat is two coats of Testor's clear over competition yellow. *Et tu, Ron!*

Bill Logan, Palos Verdes, California, built his 1968 MPC Dodge Coronet stock, with the exception of a flashy paint job and flashing lights. In case you're not a California resident (or Mod Squad devotee) let me introduce you to the scourge of our highways, bi-ways, and other street racing digs - a police car, complete with Dodge's 440 Magnum. The shot gun, screen and radio were some of the details added by Bill to give the car a more authentic appearance. Testor's gloss black and white was used to finish the car.





MCS will have to make some 1/25 scale "Support your local Police" bumper stickers if we keep getting police cars like we have been! This beautiful group of police equipment was built by Patrolman Donald E. Johnson, of Loves Park, Ill., Police Department. Don was inspired by a May, '65 issue of MCS which featured an LA Fireman who built model Fire Engines.

Most of the car models available are top-of-the-line two-door hardtops, and not the stripped four-door sedans used by the Police. This meant that all of Don's cars had to be converted from two-doors and de-chromed before he could modify them into patrol cars.

A. IMC's 1948 Ford was built completely with the exception of a siren from MPC's 1928 Lincoln, a piano wire antenna and the decals from MPC's Jeepster kit.

B. This unit was built from a Jo-Han '68 Plymouth. Decal, electronic speaker, and roof rack came from a '68 Dodge kit.

C. The Paddywagon was built from a '64 Ford pick-up kit. Sheet styrene was used for the body. The wheels and rear step came from Lindberg's Fire Engine kit.

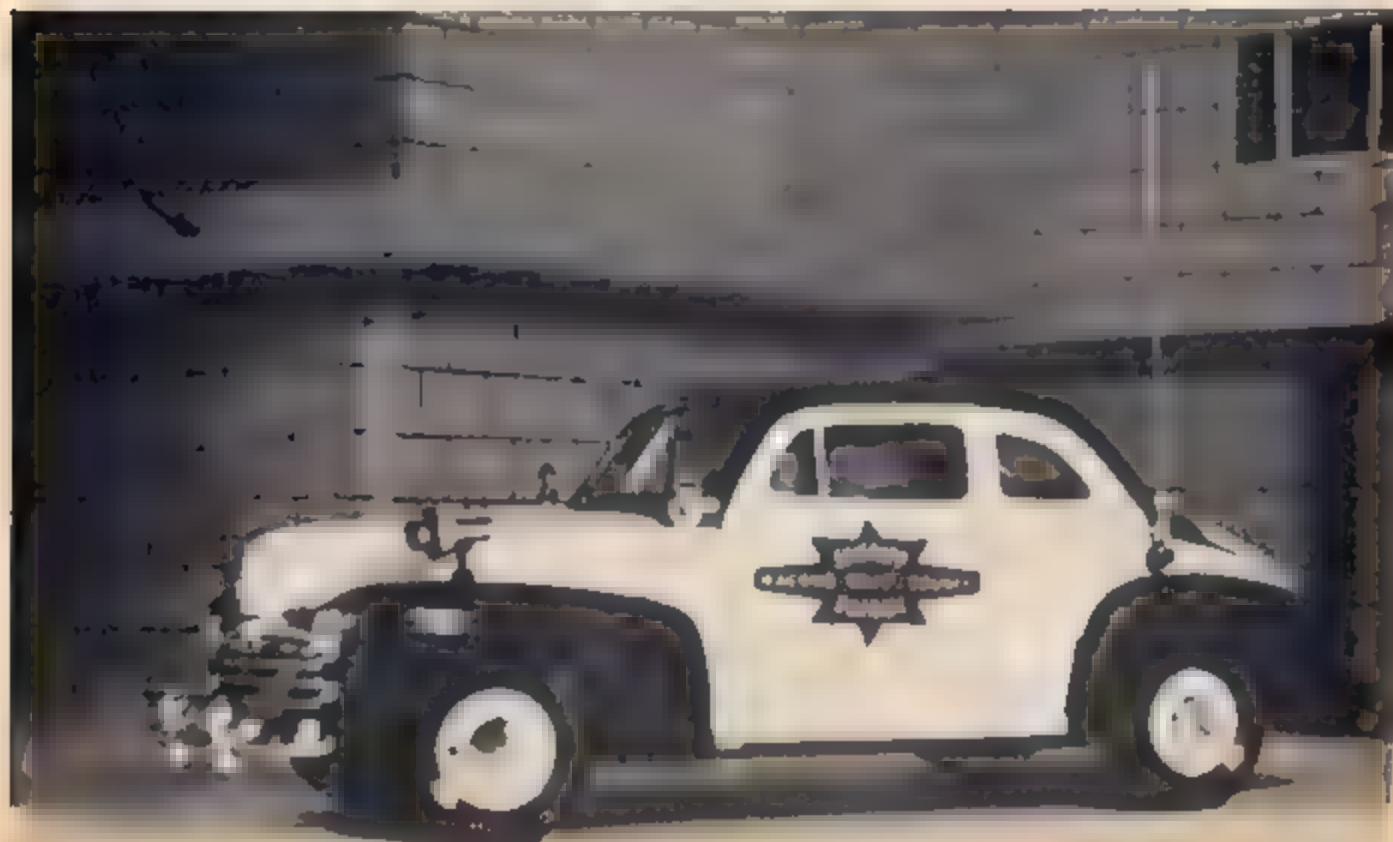


1968 PLYMOUTH



1964 FORD PICK UP

1948 FORD



NAMRA RACE REPORT

The Glen Cove and Nutley races were decided after battles that would do credit to any Grand Prix races!

GLEN COVE

First, with Grand Prix racing almost extinct in 1/24 racing, with the exception of NAMRA programs, it was quite refreshing to attend the latest event of this type held in Glen Cove, New York. The track was not new to Eastern NAMRA members, having been the same track we ran 1/24 GP's on once before, but one tends to forget what it's like to run on an all-flat track. No banks, just flat turns! the word is "delightful," and very realistic, to say the least. True you don't go booming into the turns, but you sure can see who can drive and which cars handle.

As with all NAMRA scale racing programs this one was once again sanctioned by NAMRA and sponsored by *Model Car Science* magazine. And the hardware pictured here shows this. It seemed, prior to qualifying, that many of the regulars had forgotten how to set up an inline, what with much stalling and pleading for time in the pits. But when the last car had been registered and teched in, the display of quality workmanship spoke volumes for NAMRA's scale car racers. The entire field was really one heck of a sight with some very handsome machinery. In fact, twelve cars were pulled out for judging in Concours event.

The F.I.A. ruling regarding the banning of wings was known, but those cars that had prototypes raced prior to the ban appeared in model form with their wings in place and ready to take any advantage they might find in using them. Such, however, was not the case in the actual race. The most obvious change that had taken place, and obvious in the pictures, was the almost universal use of scale, but monster type front tires. The NAMRA theory and mechanical advantage of these huge tires has been discussed before so we won't go over it again, but this was the first showing of almost an entire field using them. And you know, they look good!

Some drivers had been heard rambling about the first appearance this year of the present NAMRA Champion, Roy Wong. Some did not figure him for being any threat, having been



Trophies for the MCS-sponsored, NAMRA-sanctioned 1/24 GP race. One for each of the first four places in the three events.



The twelve cars that made it after the qualifying heats. Note the wings, more for appearance than function, but also not the use of the large front tires.



A rifle is not part of the goodies carried, but sure does help keeping peace in the pits.



Home from engineering school with a few more closely kept speed secrets, current NAMRA Champion, Roy Wong.



Main event winners and don't let those smiles fool you, Ed Benardella, Charles Cressi, Frank Bianchi, (he's standing on Charlie's foot) and Roy Wong.

away from racing for so long. But those who knew better would have been happier if he had stayed home once again.

Roy, who has been kept pretty busy with his engineering studies showed up as usual with an immaculate car that appeared to need little, if any pre-race tuning. And this, as in times past, worried the more knowledgeable even more.

Qualifying over, the lineup read Charles Bottjer, Ed Lamp, Ginny Encke, and John Roche, a well matched group of drivers for the Consie.

The Semi list was made up of Chuck Hansen, Dom Peluso, Jose Rodriguez, and his nemesis Peter McCarthy.

The Main even contestants were Charles Cressi, Frank Bianchi, Ed Benardella (current point leader), and of course, Roy Wong.

The Consie got under way with the immediate mechanical breakdown of the Encke car, and it remained in the pits for the entire event. The race itself started off with Bottjer going off and hiding by himself, with Roche close behind. The Lamp car began to give signs of early gear trouble that plagued it throughout the entire event and kept it from getting any higher than third. Bottjer, running as smoothly as ever, continued his grip on the lead

right to the line with Roche finishing a not-to-distant second.

The semi got under way with Rodriguez jumping into the lead (for a change), thanks to a last minute tire change. Hot behind him was the very fast car of Dom Peluso, staying within striking distance throughout. McCarthy, with yet another one of his far-out chassis designs, showed even more determination than usual by threatening both first and second Hansen, who usually runs faster, seemed preoccupied with keeping his car from destroying itself, and the race finished as it had started, Rodriguez coming across the line first but only one lap ahead of the second place Peluso, who had never given him a chance to breath. McCarthy's design proved better than had been expected and he was able to wrap up a comfortable third ahead of fourth place Hansen.

Now the one they all waited for, the main event, the one that would see if the Wong touch was still there, and if the old men, Cressi and Bianchi, could do anything about it.

Wong turned the first segment a full five laps ahead of second place Cressi, two ahead of Bianchi and four ahead of Benardella. A little disheartening to say the least. When the second segment gave all indications of being a re-

peat the three other drivers seemed to back off slightly and have a go at racing amongst themselves to leave Wong to run around cutting even 40 lap segments to himself. And it was obvious there really was nothing they could do about it anyway, since the Wong car seemed to be able to pass them anywhere, anytime. Benardella, who had been figured to run second, suddenly found himself running fourth due to a private race Bianchi and Cressi seemed to be having amongst themselves. The "friendly" rivalry was quite obvious, with the Bianchi car neatly putting a wheel to the Cressi car, which immediately decided to try its ability at soaring. With bad results! The smile on Bianchi's face as he shouted an apology to Cressi was indication enough and Cressi launched himself on what must be considered a suicide type of race. Unfortunately, the time lost getting his car back on the track was too much and Bianchi roared home in second, one lap behind Wong. And that's making up time! Cressi squeaked to third and Benardella, who seemed to have been caught off guard by all the personal races, could do no better than fourth.

Concours again went to Rodriguez for a new Ferrari, prepared for this particular race. At least, it wasn't the Eagle again!

NUTLEY RACE

Our second race report takes us again to that high speed shop known as the home of the Eastern jet-set Nutley Raceway. As usual, the track was fast, clean and ready for another show. There were still some feelings about the high cost of racing machinery after the last NAMRA event here, but this was to be an exceptional day for all.

Registration indicated that some of the local hot thumbs wanted once again to try their hand at this NAMRA brand of racing, and listed among the entries were such names as John Gorski a youthful thumb that gives every indication of being another Ursoner, one of the country's finest chassis builders Tony "p", and if one wasn't enough, the illustrious Sir Bob Emmott himself. Bob complained throughout the race about having to set up a chassis for 1" tires, but being one of the old guard NAMRA members, we knew it was just a lot of Emmott talk.

Registration over, tech got started and found that the usual amount of "trying to slip it by" antics still prevailed except in the case of these super pro drivers who had followed the rules right out the window. All but one, that is. Pete Von Ahrens, or "PVA" as



The lineup for this one extends right out of the picture.



The fast bank at Nutley, and some interested spectators.



Bob Emmott, still complaining about the bump!



The Consie lineup showing a quiet Charles Cressi.



The winning cars, l. to r., the Gorski chassis, the Emott chassis, and that woe-begotten inline of Cressi's.



The event winner, Bob Emott, Semi, John Gorski, Main, And Charles Cressi, Consie.

he's known to the racing world, appeared representing Mura only to have his Porsche, with its under scale tires turned back, along with the documentary proof he said had come from reliable sources in California. They sure must run small tired Porsches on the West Coast and unlike anything know here in the East or Europe! But Pete, who has sort of a healthy attitude, smiled and took the rejection well and went on to marshal.

The event called for Gp and/or sport types and the lineup indicated that the speed theories reach even into scale land with the bulk of the cars being low sport types and only one or two coupes to be seen. Even before qualifying got started it became apparent that the race was to be the new pro type entrant against the old guard NAMRA driver. Fortunately, as it must be, all were, by then, paid members in NAMRA. But still, Tony "P" insisted this would show who really goes fast, and it did.

Qualifying indicated that the field would be evenly split with two old guard members pairing off with two new members from the other side of

the fence

The Consie brought Pete McCarthy and Charlie Cressi up against Barry Deshong and Bill Taylor. This, an indication that the Cressi chassis has not, in 1/24 anyway, kept up with current design practices, would you believe an inline? The race underway, Cressi proved that age does have its advantages — experience — and he racked up a first in the first segment, followed by Deshong and Taylor, with McCarthy hurrying on. Somehow, Cressi never gave up the lead and Deshong, who was considered a favorite, could do no better than fourth. Second was taken by a very fast McCarthy who appeared with yet another new and different chassis design under a... would you believe Howmet Turbine coupe! Third went to young Bill Taylor.

The Semi brought together two old-time friends, long separated by different racing worlds. Emott faced Rodriguez and Jim Demerell with Charles Bottjer. Rodriguez had something new for this race, as he had proved by blowing off Cressi during qualifying. It was a new chassis that he had built for just this race by none

other than Tony "P". The race on, Emott shot off into a small lead, followed by Rodriguez, a lap behind, and dogging him. Third for this segment went to Demerell, and fourth to Bottjer. The second segment saw Emott again holding a one lap lead over Rodriguez, with Demerell and Bottjer holding their original positions.

The third segment saw Rodriguez making a move that obviously unnerved Emott to the point where he completely launched his car on the short straight going into the tunnel, leaping up high enough to smash the guard rail on the overpass. But this action obviously also unnerved Rodriguez, for he overcooked it in the right loop and any time gained was lost. So the third segment ended as the previous two.

The final segment came on with Emott all repaired, but muttering about a bump in the track, and Rodriguez kicking himself for having lost it. This last segment was the fastest, and clearly showed that Emott is one of the elite in the driver ranks, and that, given a jet-set type chassis, even old men like Rodriguez can push Emott to the point of tears. They finished as they had started, Emott first, Rodriguez second, one lap behind, Demerell third, a few more down, and Bottjer fourth.

The big one came up with a very mixed bag of drivers, John Gorski, the fast and very young hot thumb, Frank Bianchi, fast and a little mean, Benardella, defending his point standing with a new and very fast car, and another young man by the name of Hahn, quality unknown.

The segments got underway and Gorski disappeared. The closest anyone could come to this whiz was eight laps down, and it took everything Bianchi and Benardella had to do it. Hahn, one lap less took fourth.

Second segment saw a repeat, Gorski setting identical time and running away, Benardella taking second, Bianchi finding himself in third and Hahn moving in on him.

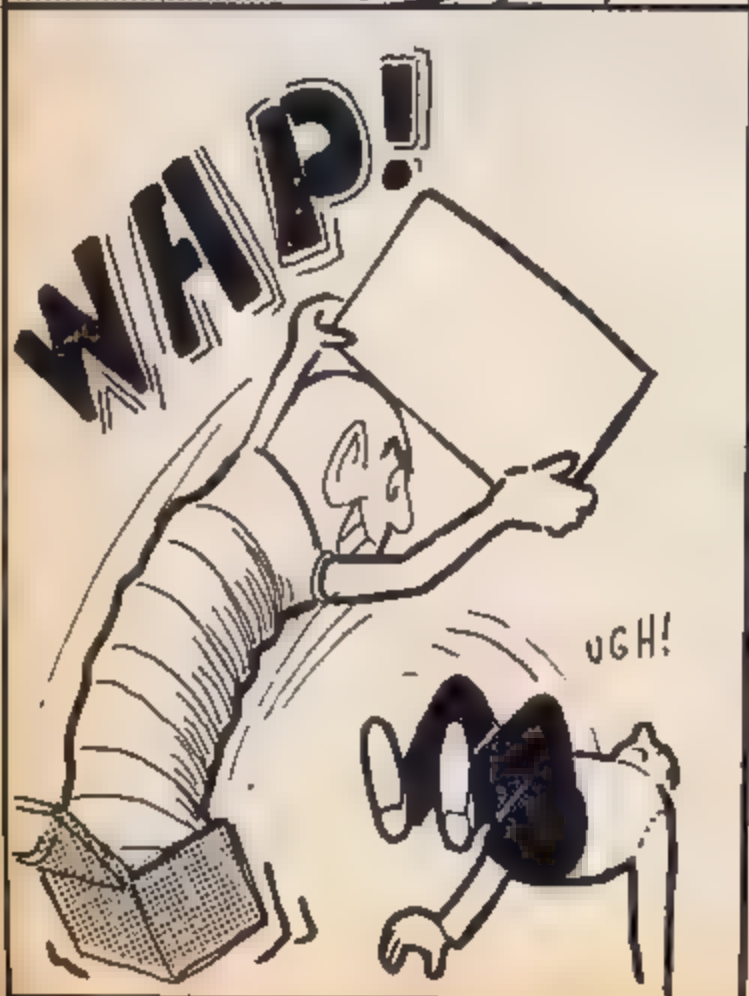
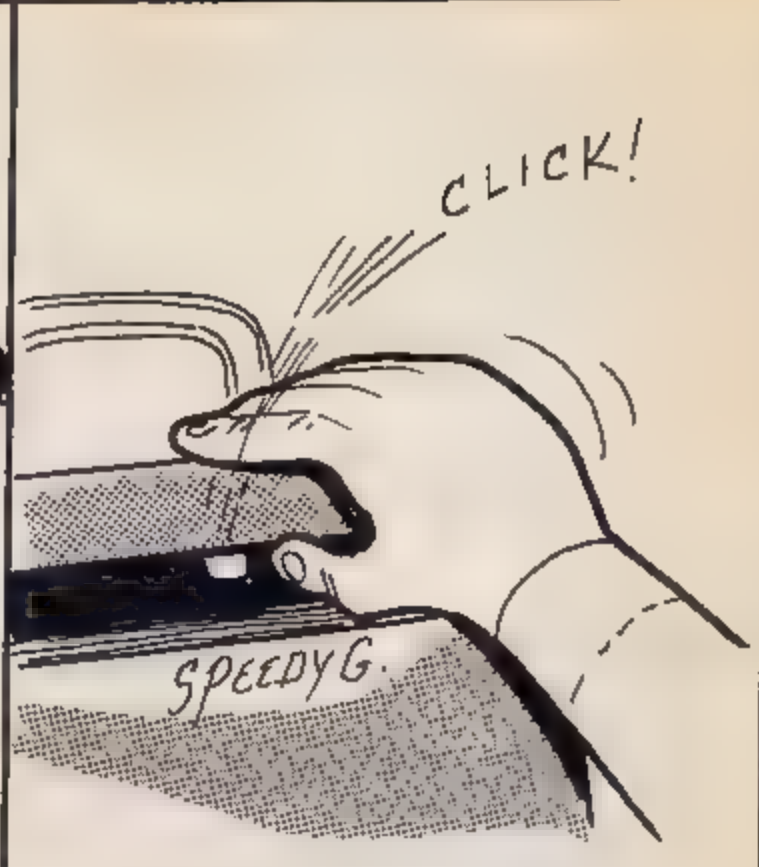
The third segment again saw Gorski pull off another ditto and Bianchi moving back into his shadow, with Hahn ahead of him. Benardella was third.

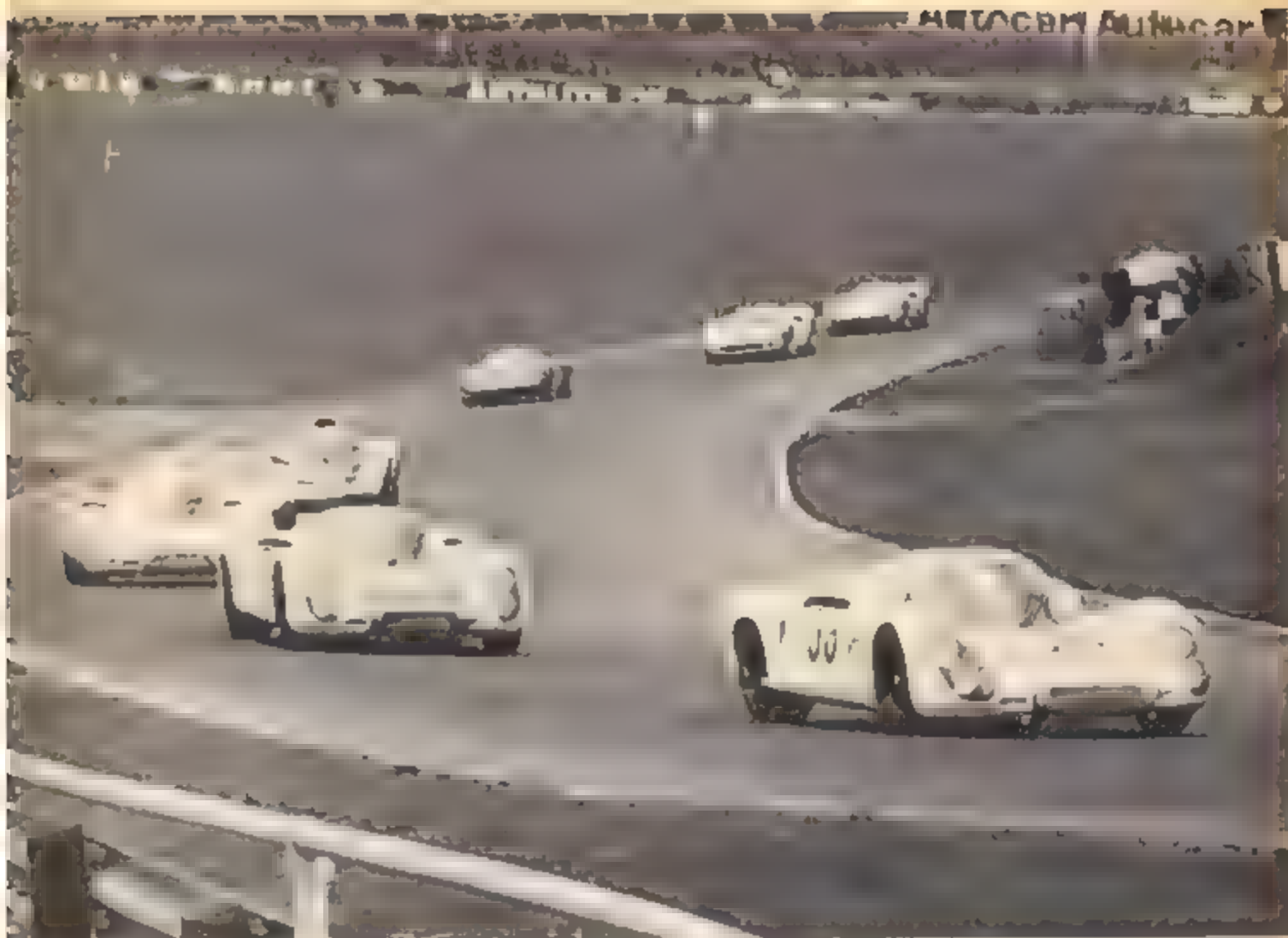
The final segment would, barring mechanical breakdown, see Gorski take it, but the other spots were still up for grabs. And when the dust had settled, Gorski had done it, his first and we hope not last NAMRA win. Second, Ed Benardella proved he earned his NAMRA points. Third, young Mr. Hahn, with a well-deserved placement, and last, but as he said, "ahead of Cressi," Frank Bianchi.

Next month, the NAMRA Regional

SPEEDY

by Puckett





There are many ways in which slot races can be organized. An invitational event, an international championship or, a regional inter-club competition may require several heats and semi finals to determine the champion. But what about a small neighborhood group with informal rules, many beginners and hardly more than one or two cars per person? This article describes a very simple way to conduct a fair and square competition for just such a group.

The basic idea is simple. Each entrant uses one car through the whole evening but he has a spare car in case the first one is irreparably damaged. Everyone runs against every other man in different heats and on all lanes of the slot track. The only task remaining is to work out the schedule which allows everyone to see the order of events and his opponents. The best way to illustrate this is by an example. (See Fig. 1) In this particular case there are three lanes, color

coded red, white and blue. Each competitor is given a code letter. In the example there are six entrants, namely A, B, C, D, E, F. In heat #1, A is on the "red" lane, B is on white, while C is on blue. In heat #2, they simply shift over to the next lane and in heat #3 they shift once again. In heat #4, B and C were given a few minutes rest while E and F oppose A. These three will now race on the three lanes. In heat #7, A is replaced by C. And so it goes, everyone is paired with everyone else until they all have had a chance to race on all lanes against everybody. In our example everyone competed nine times, Fig. 2, is a tabulation of results for each heat. The winner gets five points, 2nd place three, while 3rd place earns one point. No points are given if the car (or its substitute) does not finish the required number of laps in each heat. At the end of the 18th heat everyone's score is added up and the person with the highest total wins.

It is obvious of course that for a different number of lanes or competitors a different schedule will have to be made. It is a good idea to keep schedules in your files as they can be used every time the conditions are the same i.e. when the schedule is made for the number of persons present. The number of laps to be run in each heat should be equal and should not exceed 20 since a high number of laps will stretch out a competition too long if there is an unduly large number of competitors present. They can be divided into sub groups and the top three finishers in each group should advance into semi finals.

While the competition can be completed when the scores are added up, (as shown in Fig. 2), we found it interesting to run semi finals by having the top three finishers run off to determine the best in that group while in the remaining group a semi final can be held to determine the best man in that group. The

FIG. 1
SCHEDULE OF HEATS

3 LANES
RED, WHITE, BLUE

6 COMPETITORS

A
B
C
D
E
F

HEATS →	1	2	3		4	5	6		7	8	9
RED	A	C	B		A	F	E		C	F	E
WHITE MIDDLE	B	A	C		E	A	F		E	C	F
BLUE	C	B	A		F	E	A		F	E	C
HEATS →	10	11	12		13	14	15		16	17	18
RED	D	B	E		B	F	D		A	C	D
MIDDLE	E	D	B		D	B	F		D	A	C
BLUE	B	E	D		F	D	B		C	D	A

GET ORGANIZED!

Here's how to run your club races so everyone gets a fair shake



Grand Prix is the final event of the evening with a real long race and double points awarded for each finisher. Only the best men from the semi-finals advance into the Grand Prix. Conceivable that a not so fast, yet steady, driver may win the Grand Prix by working his way up steadily through the eliminations and doubling his points in the last race. It is obvious that this type of scheduling promotes good sportsmanship and will demonstrate that steady driving and practically no luck are enough to wind up Grand Champion.

It is also a good idea to prepare a card for each competitor showing the heats he is scheduled to run in, his opponents and racing lanes. This allows every man to prepare his car in time.

Some groups connect their track master-switch to a timing device which turns off the track current for approximately two minutes between each heat. When the current is turned on again you'd better be ready or the race will start without you!

If elimination type semi-finals are held, make sure that everyone is well aware of the rules. For instance in our group there were six racers. When the tabulation of the 18 races was published, we let the top three enter the first semi-final but they were told that the last finisher will not be allowed to enter the Grand Prix. Instead, his place was to be taken by the fastest driver in the second (slower) group. The results of the races are shown on Fig. 3.

FIG. 2 **RESULTS OF HEATS** COMPETITORS

Heats	A	B	C	D	E	F
1	5	3	1	—	—	—
2	5	1	3	—	—	—
3	1	5	3	—	—	—
4	5	—	—	—	1	3
5	1	—	—	—	3	5
6	5	—	—	—	3	1
7	—	—	5	—	3	1
8	—	—	5	—	3	1
9	—	—	5	—	3	1
10	—	1	—	5	3	—
11	—	1	—	5	3	—
12	—	1	—	5	3	—
13	—	3	—	5	—	1
14	—	3	—	1	—	5
15	—	3	—	1	—	5
16	5	—	1	3	—	—
17	5	—	3	1	—	—
18	3	—	5	1	—	—
TOTAL	35	21	31	27	25	23

CHAMPION: A

RUNNER-UP: C

THIRD: D



FIG. 3**RESULTS OF HEATS**

EACH HEAT 20 LAPS

POSITION	NAME		TOTAL POINTS
1	A		35
2	C		31
3	D		27
4	E		25
5	F		23
6	B		21

SEMI FINALS

RESULTS

(A)		(B)	
NAME	POINTS	NAME	POINTS
1	32 = 5(+27)	1	26 5(+21)
2	38 = 3(+35)	2	28 3(+25)
3	32 = 1(+31)	3	24 1(+23)

**100-LAP
GRAND PRIX**

DOUBLE POINTS (10, 6, 2)

POSITION	NAME	POINTS
1	32 + 10	42
2	38 + 6	44
3	26 + 2	28

HOCCL World



If we make the deadline this month it'll be a miracle, but we have been holding off hoping that our Regional Director, Richard Harrison, would be able to get us a race report on the last HOCCL mail-in meet held in Monroe. And bless him, it's just arrived by airmail! You'll find a complete race report with some comments from Dick himself at the end of this column.

Now, though somewhat late since they already know what happened, a word of explanation to all the entries who might have thought their cars lost in the mails. When the cars arrived in New York for registration they were packed as usual and readied for shipment to Monroe. Then we received word from Dick asking if we could hold off sending them, since he was leaving on a vacation, his first in several years. We did this, and sent the cars on late, as requested. Then, as luck would have it, the entries proved so many that the running of the events — ten in all — took a few days more. And so the whole schedule was set back. But no points will be lost because of the delay. All of the entrants have been sent a word of apology and a revised schedule for the remaining races this season. We have, of course, also notified the race sites that their events will be delayed. It should all be straightened out by the time you read this.

Even big 1:1 events have rain-outs. So, our public apology for any inconvenience. Now, if after you read Dick's report you get the feeling that he was somewhat disappointed with the appearance of the cars, you're right. So were we, at registration. If anything, we must say they were the worse lot we had yet seen. We don't know what to attribute this to, but will tell you that in the larger scales, some of the entries would not have been allowed to enter, and they won't be in HOCCL, either, after this. It would be great if the cars were painted and detailed, but we know that painting these little cars seems to be more than most of us are prepared to do. But slapping on any size decals and painting them with

what must be cotton swabs *has to go!*

And here's how it's going to be done. The new rules just won't allow it. *What* new rules, you ask. The new rules in the new HOCCL rules book that we should be mailing out to all of our members by the time you read this column. The new book has taken some time to get out, but it's here at last, and a labor of love. We hope you'll agree with us when we tell you it's the finest rules book ever written on the subject. And we owe most of it to you, our members, for telling us exactly what you wanted. The list of members who took the time to write in suggested rules changes, additions etc., would fill this page, so we extend just one big thanks to all of you. It's taken a long time, a lot of work and a lot of money to print the number of books that was needed. Now all we have to do is get them in your hands, and this is being done, right now. But please, don't be like some members we have,

if your new rules book is not in the mailbox as you read this, don't pen us a nasty note, it's on its way.

A few more don'ts for impatient joiners. Don't write us demanding your membership package in one week's time; we just can't get out the volume of mail we have in that short time. If you're willing to wait patiently for a Secret Agent X decoder ring from Corn Flakes for three months, give us at least thirty days. As for subscriptions, they are not sent out with the membership packages, they come from the subscription department of this magazine, and they require at least 60 days to process a new subscription. We had to laugh recently when one would-be member wrote in demanding to know what happened to his subscription of CAR MODEL. (Get that man's name! — Ed) And this letter was postmarked only four days after his application for membership had been sent!

SCS class			
1 Bert R. Hass	N.Y.	Faller	M-B 250d
2 Art R. Walicki	Ill.	Aurora	Chaparral
3 Barry Gray	Pa.	Aurora	Chaparral dnf
SCM class			
1 Russell Baldwin	Kans.	Aurora/L	Mstick
2 Tom Bowman	Va.	Aurora/L	Ferrari C-A
3 Bert R. Hass	N.Y.	Aurora	Cobra
4 Steve Bohn	Calif.	Aurora	Cobra
TAS class			
1 Bob R. Thomas	N.Y.	Faller	Ford Taurus
2 Art Diamond	Neb.	Aurora	Cougar
3 Barry Gray	Pa.	Aurora	Camaro
4 Bert R. Hass	N.Y.	Atlas	Mustang
TAM class			
1 Charlie R. Benson	Ohio	Aurora	Cougar
2 Howard Pfalzgraff	Minn.	Aurora	Firebird
3 Bert R. Hass	N.Y.	Aurora	Cougar
4 Russell Baldwin	Kans.	Aurora	Camaro
NAS class			
1 Russell Baldwin	Kans.	Aurora	Torino
2 Howard Pfalzgraff	Minn.	Aurora	Charger
3 Bert R. Hass	N.Y.	Aurora	Riviera
4 Art R. Walicki	Ill.	Aurora	Galaxie
NAM class			
1 Art R. Walicki	Ill.	Aurora	Galaxie
2 Russell Baldwin	Minn.	Aurora/L	Charger
3 Bert R. Hass	N.Y.	Aurora	Toronado
4 Steve Bohn	Calif.	Aurora	Torino
GTS class			
1 Fred Riess	N.J.	Aurora	Cheetah
2 Barry Gray	Pa.	Aurora	Ford GT
3 Bert Hass	N.Y.	Faller	Porsche 911
4 Bob R. Thomas	N.Y.	Faller	Jaguar XK-E
GTM class			
1 Steve Bohn	Calif.	Aurora/L	Lola T-170
2 Ted Hohnson	Ga.	Aurora	Mongoose
3 Charlie R. Benson	Ohio	Aurora/L	Ferrari P4
4 John Flood	Conn.	Aurora	Ford GT

And last, please, we continue to ask that you do not send cash. But if you must, please make sure you include it. We have sent out over eighty memberships this past year that were not paid for. We do try to give you the benefit of the doubt, but it's getting a little out of hand. The other most common error is sending the money without telling us who your are, and then, months later writing to demand your membership. We have over forty of these unknown memberships waiting here to be claimed. Take a little time in the beginning, it'll save lots more later.

From the HOCCI mail-in, Hobby House, Monroe, La. by Race Director Richard Harrison.

Wow! We finally were able to run the June HOCCI race. Sure we were late, but we did run them. Everyone who sent in an entry wants to know how his car made out. Those who did not enter just want to know who won and why. The listing above will show the top dogs, now, I'll try to tell you why.

Most of the entries were Aurora powered, there were several Tyco slide-winders (home built), a couple of Atlas (stock class), and a bunch of Faller cars and even one scratch built.

The Tycos were slow in comparison to the other cars, the Atlas cars were very strong down the straights but poor in the turns. The Faller cars were all fast. However they were so smooth running that they just coasted after shutting down for the turns. The little Ford Taurus of Bob Thomas was the fastest of the German made cars. Ted Johnson sent in the only scratch-built car entered. It featured an Aurora "N" train motor in a neat brass tube frame. This was the fastest car entered, but did not do as well as it should have. We were using the Aurora thumb-killer control and a car like this really needs something much better. We did use Russkit and Atlas controls with all the other entries.

Again, few cars were really good looking in the paint department. Concours was won by Roy Williams with his replica of the original No. 3 Chaparral. Some other good looking cars were sent in by Waucki, Baldwin, Pfalzgraff and Bohn.

Special equipment used

ranged from AJTK 110 silt-cones and 007's, to Dreher plumber pans. Also seen was stuff from Auto World, La Ganke and Mini-wheels, German motor brushes and several re-winds and both commercial and home winds.

You boys who sent in stock winds in the mod. class, no go! Most of the handling would have been improved had the cars been equipped with wide front ends and brass pans. Also many of the cars needed cleaning and oiling. Some even had dirty pickups! Slow down and make sure the cars are set up right before mailing them. Mail-ins are a lot of work to put on and those of us who host these races really enjoy seeing what the other guy is running and how he's done it.

If you don't enter these races, it's your own fault. You really should try to enter at least one car in the next meet. Who knows maybe you'll get your name in print!

Now it's time to thank the proxy drivers, Brian Murphy, Hobby House champion, and runner up John Jones. And even me!

NAMRA World

We have lots of words for you this month, what with two race reports and some very important news that will effect an awful lot of racers, commercial type that is.

First, the news, and it's important. Up until a few weeks ago, no one with the exception of the handful of people involved knew exactly what NAMRA was up to. They only knew something was going on. Some NAMRA officials had been heard making sounds like "NAMRA Group VII", but would say nothing else. Now it's official, and for publication.

NAMRA, created several years ago and today the oldest and largest body of organized slot car racers in the world, started off as an organization devoted to the building and racing of scale miniatures, this, it still does. A few years ago, it took HOCCI, (H.O. Competition Cars International), un-

der its organizational wing and so gained control of the largest group of H.O. enthusiasts in the world. Now, three scales were being cared for - 1/24, 1/32 and H.O.

Early this year, NAMRA made another move and created the New NAMRA Formula, a race program for the home racer who didn't wish to run outside of his own home.

Now NAMRA, in yet another move, has created NAMRA Group VII. By the time you read this, there will be many different versions of exactly what has happened, but this word is right from the top.

NAMRA's Group VII is a program for racers who do "their thing" at commercial raceways. This is a program for racers who, up until now, have been running under the pro, semi-pro and amateur classes. We have different titles for them, but it means the same thing. This is a program for Can-Am type racing, the kind that is being done in commercial shops right now, all across the country. This is the "jet-set" program, the unlimited all-out speed show that so many of you want.

And, we hasten to add, NAMRA's battle axes are stored where they have been for some time. We are not challenging any organized groups and/or programs already running - enthusiast groups that is. We may be deriding the NCC's program, but you pay your money and you take your choice. You'll find the rules very similar and there's good reason for this. The rules, for the most part, are pretty good as they are and we did not want to start a program that would require new members to change their machinery over to new theories. We wanted to give them exactly what they wanted. What changes there are in the rules are in race procedure primarily, and those changes are what the racers wanted.

The cars you are running right now are the cars you will run in Group VII. The program is, however, limited to open Can-Am types only, because it is what the racers want.

Other noticeable changes will be no big money races. NAMRA has never agreed with this type of race, and has in fact felt that it hurts the sport.

There is no aid from the industry and/or any manufacturers. NAMRA is the sponsor and the sanctioning and governing body. What merchandise and trophy awards given the semi and amateur classes will be paid for by NAMRA. And that is pretty much what will be offered in NAMRA Group VII racing, now.

Why did it all come about? First off, NAMRA did not go looking for a new program to offer. We thought, as

Continued on page 62

By Robert Schlicher

The "funny" cars aren't the only ones on the strips with a wild paint job. One of the most eye-grabbing color-me-racer cars is Barrie Poole's full-size 1969 Mustang. The car made it all the way to the final run in the 1969 NHRA Winternationals, only to be beaten to the traps by super-star Ronnie Sox.

The red-with-white-and-black-striped paint sets Poole's car apart from most of the nearly-as-wild cars in this class. We're not sure, as yet, whether Poole actually will field a 1970 version of his 1969 Mustang hardtop, but we'll just assume he will, and try to beat him to the "line" with our 1970 Mustang hardtop model of his car and its tri-tone paint.

Revell's 1/25 scale 1970 Mustang is among the very first car kits to see your dealer's shelves in the 1970-model year. The kit parts make the building of a "Super Stock"-class car a simple task. High-rise front and rear suspension

options are included, with wide drag slicks for the rear and slim-profile tires and wheels for the front. Engine options include racing manifolds and exhaust headers, with a choice of SS-class air cleaner or supercharger. All we have to do is match the paint on Barrie Poole's real car.

One of the options in the Revell 1970 Mustang kit is a choice of either convertible top or the vinyl-covered hardtop used on the Mustang "Grande" model. If you model the convertible or the "Grande," you're in good shape. If you choose to model the plain-old-hardtop, like we did, you'll need to spend some extra time filling in the seam between the top and the rear fenders. The smooth blending of top and fender side panels is one of the earmarks of the 1970 Ford Mustang hardtops. This is a good chance for you to learn this trick-of-the-customizers—the joining of, say, a hood panel to the rest of the car, or a top to the fender sides. This body filling technique will not only match your Mustang to the lines of the '70 car, it will give you a chance to try custom tricks-with-body-filler on custom cars as well.

Revell's new kit has all the goodies needed to build a 1970 version of any "Super Stock" Mustang.

FIRST OF THE '70 "SUPER STOCKERS"





To learn the techniques of custom body-filling, you'll need a can of automotive metal base body filler, a screwdriver, coarse file, fine jeweler's files, a hobby knife, number 500 wet-or-dry emery paper, and a tube of cement-for-plastics.



Squeeze the glue joint between top and body as it dries. After about 48 hours, glue joint can be trimmed flush with body.



Final body-smoothing is done with number 500 wet-or-dry emery paper dipped in water. File and sand off the "Vinyl" surfaces that are molded into the kit top.



The lack of joining line between top and fender is one of the identifying marks of the 1970 Mustang. Revell's 1970 Mustang kit's top is fine for the vinyl-covered "Grande" version or convertible, but seam must go to make the hardtop. Glue on top with a thick bead of cement.



To obtain a perfectly smooth surface at the fender-to-top joint, dents and "join marks" must be filled in with body filler. Allow filler to dry overnight, then shape the filled areas to blend in with the car's line by filing filler with jeweler's files.



File off the parallel grille bars of the 1970 Mustang to match the look of a blanked-off racing grille.



Body is primed, sanded again with wet number 500 paper, and sprayed white. When dry, body can be masked and front sprayed red.



Stripes across rear deck were outlined with 1/64"-wide black striping or drafting tape at points shown.



The area between every other stripe is brush-painted black. Tape makes straight edges between stripes easy to paint.



"Sandy Elliot" is number V26 Astraset brand dry transfer lettering. All decals are from Revell decal sheet. "J" is cut from a letter "C" on sheet, applied upside down.



All of the chassis and interior details are included among the Revell 1970 Mustang kit options. Engine is "stock" version.

58/Model Car Science



Paint scheme is matched to that used on Canadian Barrie Poole's 1969 Mustang hardtop that finished second to the Ronnie Sox car at the 1969 NHRA Winternationals.



THE PAPER TIGER

Here's a budding automotive designer who whips up his creations
with a lot of imagination and a minimum of material!

Charles Lamm, seven years old, is a real "Paper Tiger" who has been turning out model cars on an assembly line basis for two years, using nothing but paper and Scotch tape. His method surely has to be the most inexpensive one in the model building business!

Charlie has learned to hide the Scotch tape by taping his cars on the inside. For frame members and axles he uses toothpicks and cardboard, for chrome he uses tinfoil. Most of his cars are complete with detailed interiors. Lately he's taken to making front suspensions with upper and lower A-frames. Blowers and that kind of jazz are "old hat."

Charlie is the son of automotive writer, Michael Lamm. Perhaps that's where he picked up the "urge."

It just goes to show you, fellows. When you've got the model building "itch," you can find a way to satisfy that creative desire without spending a lot of money.

Good job, Charlie. We'll no doubt see more of your work in the future!



FORMULA "A" MEANS "ACTION"



Here are 1/32 scale Continental Championship machines from MESAC's enthusiast group that combine both looks and plenty of "go."

As full-size prototypes for 1/32 or 1/24 scale slot cars, the Formula A (or Continental Championship) cars are perfect — generally fat and wide with great hulking "donuts" for front and rear tires mounted on relatively small wheels — all very slot-car-like. If your model of one of these Formula A cars looks like it's too wide because you had to hide the fat Mura motor and pan chassis, or if the current trend in tires makes the car look more like a steam roller in miniature than a "classic" racing car, then you can be pretty certain you've made a near-perfect miniature. At last there's a full-size set of open-wheeled formula cars that can look right and handle on a slot car track.

So far as we can determine, the fabled MESAC club (3737 W. 104th St., in Inglewood, Calif.) was the first U.S. group to stage races and build cars for the new Continental Championship formula. Most of the members have opted for clear plastic Lola T142 or McLaren TS5 bodies from GT Models, Ltd., of England.

Some of the members' cars utilize the 3-liter Lotus Formula 1 body, or the Gurney Eagle Formula 1 body from the American made Lancer line of 1/32 scale clear plastic bodies. MESAC rules, for their Formula A class, require the use of the slim Mabuchi 13D-style motor that is supplied in Monogram's 1/32 scale Ferrari and Lotus GP car kits. There is ample room, however, in any of these clear bodies to fit a standard-size Mabuchi Mura or Champion motor for your own club races. There are no limitations on chassis design as long as the car has scale-size track width, wheel-base and tire sizes.

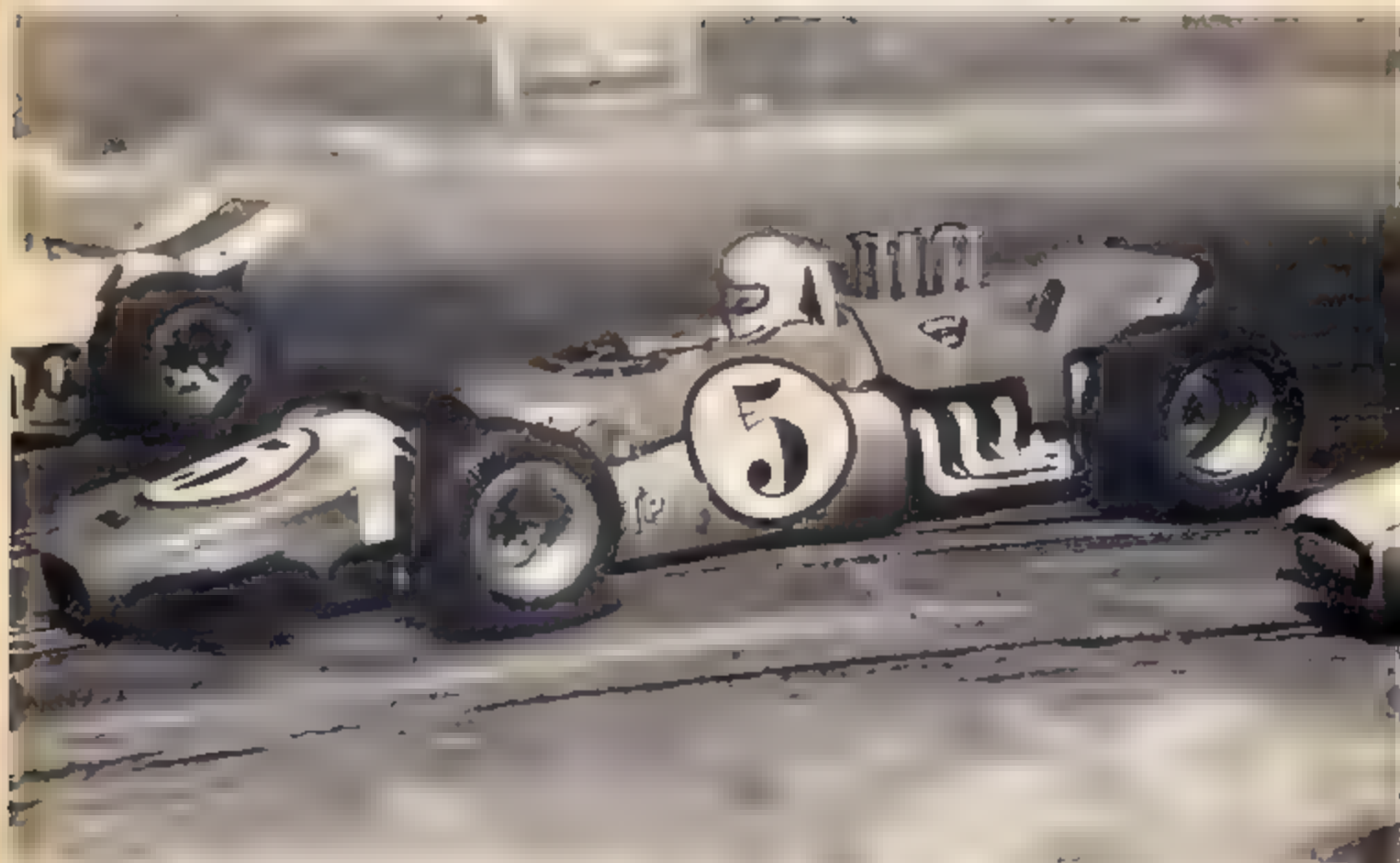
The quick-thinking club members have designed some of the wildest chassis you can imagine. The four-part chassis in the photos is the most successful so far, having won all four of the monthly races to date. The car was designed and built by Don Sloan. The chassis operates just like the current "commercial" 1/24 scale chassis with "plumber-type" drop arms/body mounts. In the slim Formula cars,

though, the body mounts do not hinge along the sides of the motor. The front wheels are attached to two of the chassis side rails and to the motor and drop arm pivots. The body mount rails are attached only to the body itself and to the "plumber" hinge on the drop arm, just behind the pickup. Sloan has added the feature of having the motor-and-rear axle hinge from the front wheel's side rails, much like the pickup arm does at its hinge. As a result, the body, drop arm, front wheels and motor-and-rear axle are each a separate and independently-hinged segment of the overall chassis. The idea behind the design is to isolate any vibrations that one of these components might pickup from the rest of the components. The results of the Sloan design are simple — the car is ultra-smooth, forgiving and super-sticky in the turns — it wins! The design seems to work so well that a number of both MESAC club members as well as some drivers at local commercial tracks are trying out the design on chassis of their own. The four-piece-plumber may be just the thing for both 1/32 scale racing and for the new NCC "Formula III" 1/24 scale races on commercial tracks.

By Robert Schuchter

Realism and up-to-the-minute modeling in 1/32 scale. Don Sloan's model of the T-142 Lola car for full-size "Continental Championship" Formula A racing.

Dan Wilson modeled a slightly different version of the T-142 Lola Formula A car, with red upper body, silver lower, and black/yellow cowl stripe 1/32 scale



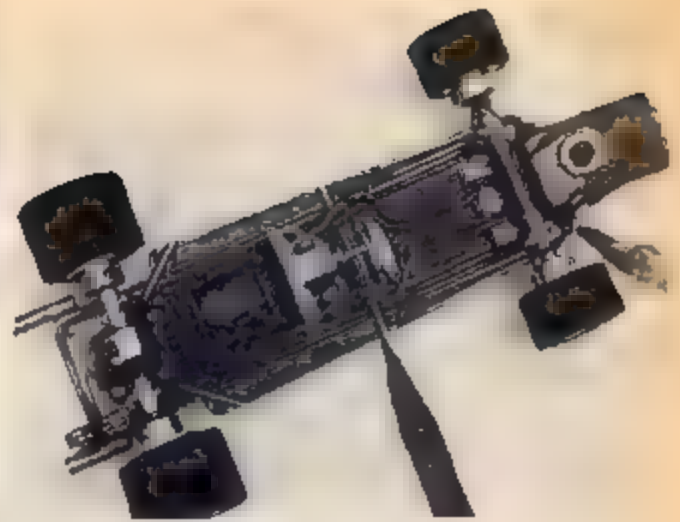
Don Sloan's T-142 Lola has its English-made G.T. Models-brand body shell detailed to perfection, with full suspension parts, detailed transaxle, storage batteries and oil filter exposed at the rear of car



Interior on Sloan's Lola includes full driver, vacuum-formed from sheet plastic, with shoes and his hand on the shift lever. Mirrors, instruments and steering wheel are all right where they should be.



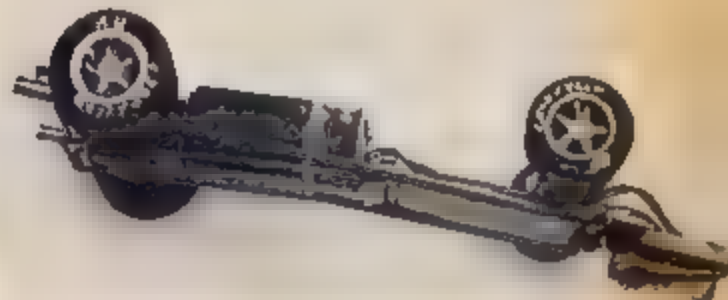
Carburetors came from 1/25 scale American passenger car kit. Body mounts to chassis with four straight pins in the accepted 1/24 scale style. Headers are part of body



Four-piece chassis hinges at three places (in addition to pickup's pivot). Pencils point to hinge for "plumber" body mounting sub-frame (just behind pickup) and to the hinge for the "drop" motor/axle unit. Third hinge is for drop pickup swing (just ahead of motor/axle hinge)



Side view of chassis with all four sub-frames tight against their stops-to-limit-upward-travel. Rails are piano wire; plates, .020 inch brass sheet stock.



Drop pickup arm is pivoted down, here, carrying the body-mounting sub-frame with it. Rails nearest camera are the side rails of the body-mounting sub-frame



Here only the body-mounting sub-frame is pivoted up (at the rear) from its hinge just behind the pickup shoe. The drop pickup arm is in its "up" position.



Drop arm and body mounting sub-frames are in their "up" positions against the stops built into the front wheel/hinge-mount subframe in this photo. Only the motor/rear axle sub-frame is "in action" in its fully-dropped position. Chassis design isolates each of car's major components from each other to minimize vibration for smoother, faster, handling.

THE MCS CARTOON TALENT CONTEST

HERE'S A GREAT CONTEST!
JUST DRAW THE WINNING
CARTOON AND WE'LL SEND
YOU A ONE YEAR SUBSCRIP
TION TO MCS! LET YOUR
IMAGINATION GO WILD!



THIS MONTH'S WINNER

Mike Dexter
2565 SW 112th Place
Portland, Oregon 97225



Congratulations Mike, your one
year subscription to MCS is on
the way. You'll receive your first
copy in about 60 days.

"I have a feeling I've overdone something."

THIS MONTH'S WINNER. Buster McGinness, 1420 Nott St.,
Schenectady, N.Y. 12308. Congratulations, Buster, your one year
subscription to MCS is on the way. You'll receive your first copy in
about 60 days.

CARTOON CAPTION _____

DO YOU ALREADY HAVE A SUBSCRIPTION TO MCS? YES ☐ NO ☐

YOUR AGE PLEASE _____

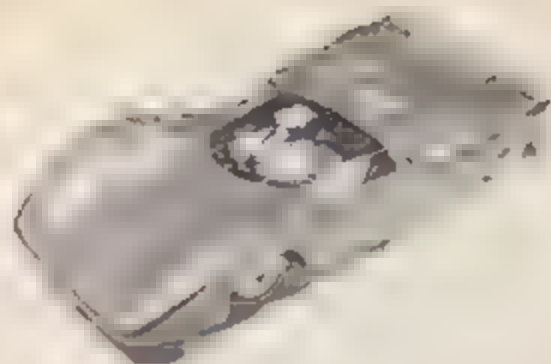
NAME _____

ADDRESS _____

CITY _____

STATE _____ ZIP _____

CHAMPION R-T-R CARS

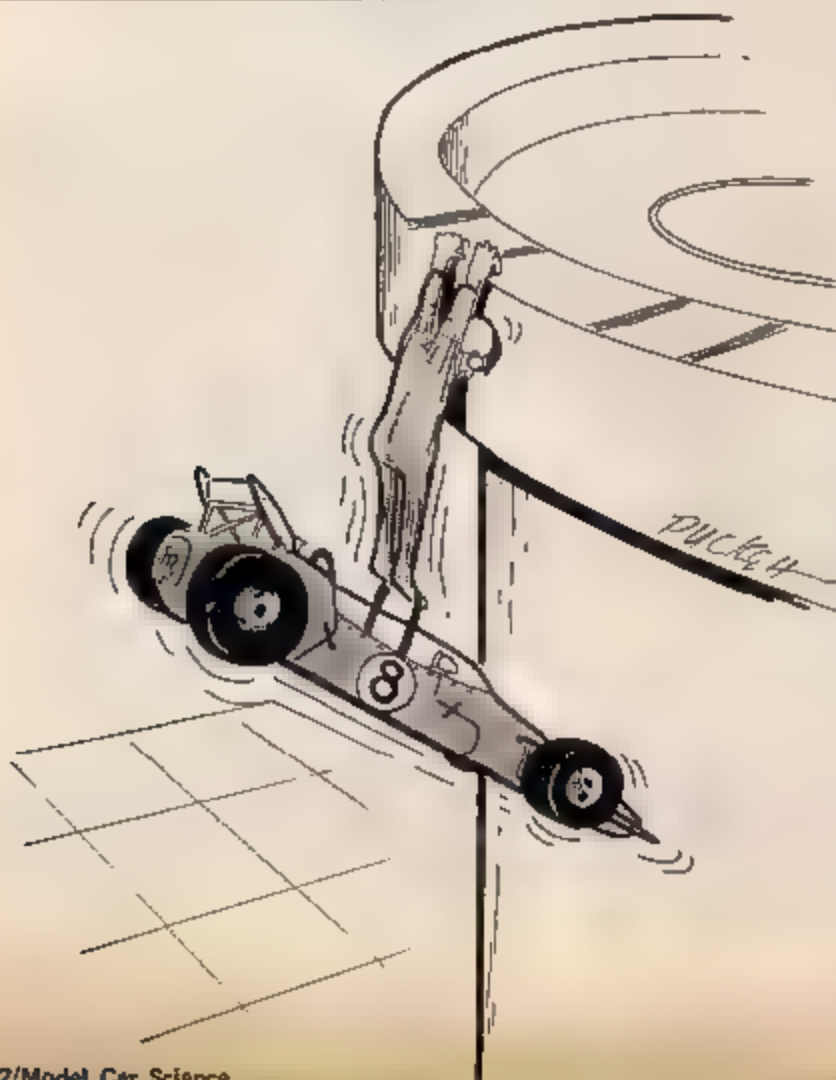


R161 - In-line brass rod frame, 5007 stock motor set screw front & rear tires unbendable axles painted sports car body \$10.95

R167 - Anglewinder frame, 5007 stock motor, set-screw front & rear tires, unbendable axles, painted sports car body \$11.95



5620 New Peachtree Road
Chamblee, Georgia 30341



NAMRA WORLD

Continued from Page 53

many still do, that everyone racing today was happy with the program in which he participated. Such obviously was not the case. Late in July, NAMRA was contacted by a group of Eastern pro drivers, requesting a meeting. The meeting was held and it turned out that they were unhappy with the way things were, and were speaking for the majority of racers in this part of the country. Their biggest gripe seemed to be not the racing rules, but a complete and total lack of organization and fair play in their racing programs. The fact is, regardless of what you have read, that Eastern racing, the commercial raceway type, was and is in a state of complete breakdown.

At first, NAMRA listened, not too enthusiastic about taking on anything like this because there would be too many people prepared to say that NAMRA was once again out after someone's scalp. But the more the Pro drivers balked, the more it became obvious that unless something was done and done fast, that it was conceivable that commercial racing, as it was known in the East, would be dead.

We at NAMRA really don't care if you choose our brand of scale racing. You race your's and we'll race ours, without getting in each other's way. But we don't want to see any form of racing go under. This would hurt all of us, the racer, the dealer, distributor and manufacturer. So we did something about it. And the beauty of an organization like NAMRA is that it doesn't take twelve months to get something done. Three meetings and two weeks later, a final rules draft was written and at the printers. The NAMRA Group VII rules Book (underline the word *book*) is now ready for distribution. By the time you read this the first Group VII race will have been held.

This is the first of a series that could run as high as twelve different races all along the Eastern part of the country prior to the crowning of a National Champion. Right now NAMRA is busy signing up driver members. Yes, the membership fee is, as in all NAMRA classes, \$1.00 per year and sanctioning tracks that meet with our specifications for future race sites.

NAMRA's organizational reputation has been given a vote of confidence from the commercial racer and we are not about to let him down. So now, regardless of what you race and how, we can offer you membership with the oldest, the largest, and the best racing organization in the world. Next month, a full and giant size race report on the first NAMRA Group VII race.

THESE
MAGAZINES
ARE RAPIDLY
BECOMING

RARE COLLECTORS' ITEMS!



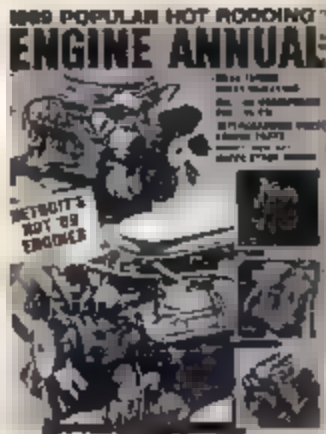
1969 Model Railroading Ideas

\$1.00



1001 Model Airplane Ideas

75¢



1969 Engine Annual

75¢



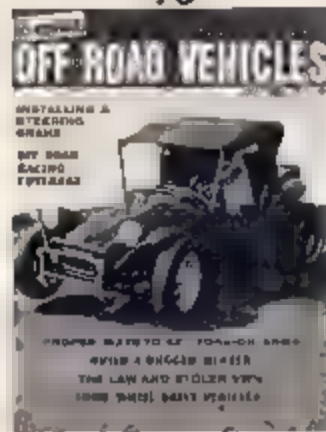
Chevy High-Performance Manual

1.00



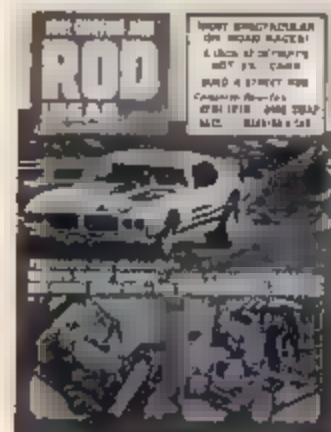
Wild World of Funny Cars

75¢



Wild World of Off Road Vehicles

75¢



1001 Custom and Rod Ideas

75¢



1001 Custom and Rod Ideas

75¢



Popular Cycling

60¢

Simply put a ✓ in the box
of the magazine you want.

- ☐ 1969 Model Railroading Ideas
- ☐ 1001 Model Airplane Ideas
- ☐ 1969 Engine Annual
- ☐ Chevy High-Performance Manual
- ☐ Wild World of Funny Cars
- ☐ Wild World of Off-Road Vehicles
- ☐ 1001 Custom and Rod Ideas (Summer)
- ☐ 1001 Custom and Rod Ideas (Fall)
- ☐ Popular Cycling JAN 79

ARGUS PUBLISHERS CORP., 131 Barrington Place, Los Angeles, California 90049

Send me the issues I have checked
My check for \$ _____ is enclosed

Name _____

Street _____

City _____

State _____ Zip _____

Please print clearly. This is your mailing table.



PARMA

WORLD WIDE MAIL ORDER SERVICE

If you live in Sweden, England, Australia, or Dogpatch, U.S.A., our parts will get to you in record time. Try us.

Cukras Race Motors- 255 ..	\$24.95
Russk 1 Controller Heat Sink ..	\$ 1.50
Mike Steube Armatures ..	\$10.95
Riggen Grooved Fronts	\$ 1.29
Champion Orange Picker 245 ..	\$19.95
Assoc. Drop Arm w/hole .047 ..	\$ 1.00
Parma Ground Flat Wire 047 x .063	3 for \$1.00
Rehco Plastic Spacer and Air Dam ..	\$.69
Zimmerman Armatures, all sizes	\$12.00
Warner Laxan Bodies, 8A, 160 ..	\$ 1.75
Parma Julius Tire Traction	\$.70
Dynamic Laxan AVS Shadow and others ..	\$ 1.89
Nutley Frame Kit	\$ 3.29
Parma Pro Frame, Flat Wire, Notched Pant, Cut out Drop Arm, Left Side only	\$19.00

Please send for our free "Pro" Catalog listing all slot racing manufacturers

PARMA INTERNATIONAL RACEWAY
5421-S Pearl Rd., Cleveland, Ohio
44129 USA Phone 216-884-9508

EASTERN VIEWPOINT

Well, I said there was something in the air here in the East! It's NAMRA's Group VII program. This is their new program complete with rule books catering to the pros and their type of racing, score sheets, forms, literature, sanctioned tracks and drivers, an awful lot of them.

What's it all about? I would imagine this month's column under NAMRA heading will have full details, but from where I stand, and its a pretty good vantage point, the drivers here (and that's pro, semi-pro and amateurs) had it until they just couldn't take it anymore and went looking to NAMRA for some long needed help. What's coming now may make a lot of eyes roll and

the gnashing of teeth can be heard already (old familiar sounds to these ears), but as long as I'm allowed to write it the way it really is, that's the way you'll get it.

The pros formed a committee to meet with NAMRA, the story is this simple and straight. They were tired of waiting for sensible racing rules and they wanted organization. Not the poor substitute for same they had been fed for some time. And they were sick and tired of the cheating and rule changing that was going on within race programs from one race to another. They just were not getting a fair shake and they wanted out of it all. They felt they were not part of any

get more tire on the track with

aj's NEW **LIGHTNING 22's**



only
\$100

It's the great new rear slick that's taking the HO world by storm. A full 1/4" wide that scales up to 22" on the big cars. Hard wearing, chunkproof SIL-I-KONE slicks mounted on threaded aluminum wheels, knurled axle and jam nuts. Ask your dealer for aj's TK-120 Speed K I. Only \$100

A. S. NATIONAL RACEWAYS, DIV.

TWINN-K, INC.

BOX 31228 INDIANAPOLIS, INDIANA 46231

64/Model Car Science



organization that would listen to them and that racing here, and I stress *here*, in this part of the country was falling apart from lack of organization.

The NAMRA people listened, agreed and asked what could be done to help. They were told, three meetings worth, and it came out new race procedure, written and enforced by enthusiast drivers, not manufacturers, etc. This is their game and they wanted to have something to say about how it should be run. The rules were reviewed, the ones they had been running under. They picked what they wanted to keep, changed what needed changing and tossed out what they didn't like. And for the ones that went out, new ones went in.

These would now be NAMRA rules, the races would be NAMRA run. No big bucks, no donations from manufacturers and no changing the rules to suit a factory team or product. Sounds stiff, and it is. NAMRA is a pretty rigid organization and whether you like it or not, they have been around and racing for longer than any other group so they must be doing something right. The results are these so far: Those that had run under other rules would now run under NAMRA rules in NAMRA races as NAMRA

members. And as NAMRA members they would either run by the rules or be asked to leave — no bending, no changing. NAMRA gave them what they wanted and now, will see to it that they run as they want.

NAMRA as an organization is not out to split ranks (though this will do it), but it will not see anyone wanting in being turned away. Since the rules desired were quite different from what NAMRA was accustomed to, it was obvious that a whole new rules book would have to be prepared. As you read this, many so called pros are book-carrying members. It's a new book, and a new program, but just one of four that NAMRA has been conducting with success.

NAMRA is not anti-manufacturer; we too need the parts everyone else uses and we understand the market and the thinking involved. But we do believe that racers should write their own rules and have their own organization made up of racers.

NAMRA will not join any manufacturer's group because it realizes what this means, so as before, NAMRA again stands alone. But at least these Eastern drivers who were about to be forced to do just that, won't. They are now part of the large-

Continued

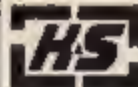


NEW K&S METAL CENTER

81 Different shapes & sizes. Brass, aluminum, copper, magnesium.

CREATED ESPECIALLY FOR THE HOBBYIST

AT YOUR HOBBY SHOP NOW!



ENGINEERING
4917 W. 39th St.
Chicago, Ill. 60638



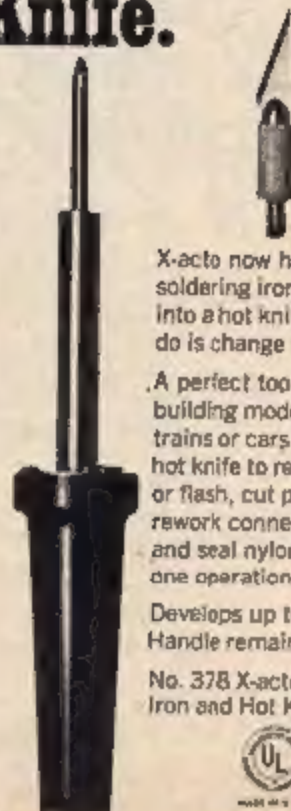
the great crippler of young adults

SEND YOUR
CONTRIBUTION
TO...

MS
MULTIPLE SCLEROSIS
% POSTMASTER!

TODAY!

The Soldering Knife.



X-acto now has a soldering iron that turns into a hot knife. All you do is change tips.

A perfect tool for building model airplanes, trains or cars. Use the hot knife to remove epoxy or flash, cut plastics, rework connectors. Cut and seal nylon cord in one operation.

Develops up to 720°F. Handle remains cool.

No. 378 X-acto Soldering Iron and Hot Knife. \$4.00



X-acto Inc. Dept. 12
48-41 Van Dam Street, L.I. City, N.Y. 11101
December 1969/65

HO SCALE DRIVERS KIT!



4 DRIVERS IN A KIT

4 super detailed HO Drivers with pin type necks to fit any clear or plastic HO body made. Complete kit includes 4 drivers heads, interior plastic, instructions.

AUTO WORLD HO DRIVERS KIT...39

SEE YOUR DEALER FIRST
WATCH FOR MORE AUTO WORLD
BRAND ITEMS FOR HO.

★ **SPECIAL** ★
MAIL ORDER OFFER!
2 Auto World HO Drivers Kits
1 Auto World HO Decal Sheet
\$100 POSTPAID

Pa. residents add 6% tax

auto world • 701 N. Keyser Ave. MS
Scranton, Pa. 18506

Take stock
in America

LEARN TO

FLY

**MODEL
ROCKETS**

Don't miss out
on this exciting
new hobby!!

How high do they fly?
What makes the chute pop out?
How much do they cost?
How many times can they fly?

Find out today! Send for our
"Answer-Packed" catalog.

CENTURY ENGINEERING CO.
Box 1988 Dept. L109
Phoenix, Arizona 85001

I'd like to find out more about model
rocketry. Enclosed is 25c for your 100
page catalog (Refunded on first order)

Name _____
Address _____
City _____ State _____ Zip _____



Don't delay
Send today!

EASTERN VIEWPOINT

Continued

est and strongest racing organization in the world. There's the story, and there, is the stand.

It seems strange that a group of so many knowledgeable drivers would seek out a camp that had been so alien to them, but not when you realize what has been going on here in this part of the country. That rules are changed midway in a race for the benefit of one or two is not unheard of, and is known even by some Western drivers who have raced here. The coverage of races has been bad and lacking. MCS will take care of this with the regular NAMRA WORLD column. But now, on the eve of new pro-type rules being written, it became known to many of the people here that rules established as firm in Dallas have been changed not once, but twice without a rules committee meeting. Then what's the sense of committee and meetings?

The drivers here have felt for a long time that even though they were all supposed to running under the same rules as the rest of the country, that things had a way of changing from here to the Mid-West and Far West.

And when these same drivers, who are so eager to win their fair share of points and take their well-earned place in the ranks, boycott a race en masse, then baby you know you have grief.

The grief described is real, the people expressing it are real. This is no put-on. Well known names like Emott, Tango, Furman, Deshong, Rubin, Gorski, Bloom and Provett echoed it, if not voicing it, at the meetings. And when you see a copy of these new NAMRA Group VII rules you can read the names names on the list of advisors and endorsers. Class B (Semi-pros) reads Bloom, Marra, Deshong, Damerell, and Harris. Class C (Amateurs) lists Furman, Provett, Peluso, Wagner, Bianchi. So these are some of the people who want a change and did something about it.

It's a bombshell no doubt, and in a way too bad, but someone with the authority should have listened to these guys and done something about it before it came to this. Too much time has lagged between talking, promising and delivering.

The guys at NAMRA say this is the way it is, and if you agree, welcome aboard. They'll be glad to have you, they have nothing to sell, they just want to race. What about you? Any comments, questions, and/or flaming arrows will find me care of the Editor, and his ribs providing, I'll try to answer them right here.

Fox Mini Bike

DO IT
YOURSELF
OR FULLY
ASSEMBLED

from
\$99⁹⁵



SEND \$1 FOR BIG CATALOG Shows new line of the world's finest MINI-BIKES (street and trail models), plus Go Kart's, parts, accessories and plans. Amazingly low prices! There's a Fox MINI-BIKE for everyone from age 10 to adults.

EXTRA BONUS Catalog shows radios, watches, walkie-talkies, cameras, musical instruments, tools, appliances and many other items you can buy at practically wholesale prices. Free \$1 coupon.

FOX CORP., Box 797, Janesville, Wis. 53545

HO WINNERS

Like Haas, Shaw, Ester Line, Frederickson and many others use our fast service and HO Speed parts. Why don't you? Send self addressed stamped envelope for complete price list.

THE HOBBY HOUSE A Personal Service Shop
1312 North 18th
Monroe, Louisiana 71201
Phone AC 318-322-5374

JOIN MARCH OF DIMES

**mini
ho**

PO BOX 3247,
CLEVELAND,
OHIO 44103

Complete mail order service on all H.O. Cars and Racing Accessories. We carry everything in H.O. only Aurora-La Garbe-Tyco-Twinn K Lancer-Atlas-Russlet
Send 25c for complete catalog & free decals

mura HO

PERFORMANCE PRODUCTS

WANT THE MOST IN
HO PERFORMANCE
AT ANY COST?

TRY THESE

07-01 SuperMagnets . . . 79¢ pr.
07-03 Copper Brushes . . . 19¢ pr.
07-04 Silver Brushes . . . 29¢ pr.

AT YOUR LOCAL DEALER
MURA HO Performance Products
1630 162nd. Avenue
San Leandro Cal. 94578

Famous Cars in Miniature

1:43 Scale Fully Assembled • 1:18 Scale Super Kits •
1981 Car Replicas The Car License and Driver!
European imports, Factory direct, Exclusive,
Mercedes, Ferrari, Alfa Romeo, Guernsey, Ferrari,
Lamborghini, Bentley, Formula, Jaguar, etc. etc.



CATALOG 30¢ coin or stamps
FIAT 1906 (Rio 25) \$4.95
DE DION 1894 (Rio 30) \$5.95
ROLLS 1931 open (Rio 40) \$5.95
ROLLS 1931 closed (Rio 39) \$5.95
RENAULT '07 (Rio 34) \$4.95
RENAULT '10 Taxi (Rio 35) \$4.95
Add 50¢ postage

SINCLAIR'S AUTO MINIATURES
3416 N. Lake St., E.A. 40, 10000 Dept. 98



1915 Ford Coupelet



1911 Packard Tourer



1911 Stevens Duryea Tourer



1900 Renault Towne Car



1900 Latier Briarcliff



1909 Rolls Royce Silver Ghost



1914 Mercer Raceabout



1909 Cadillac Tourer



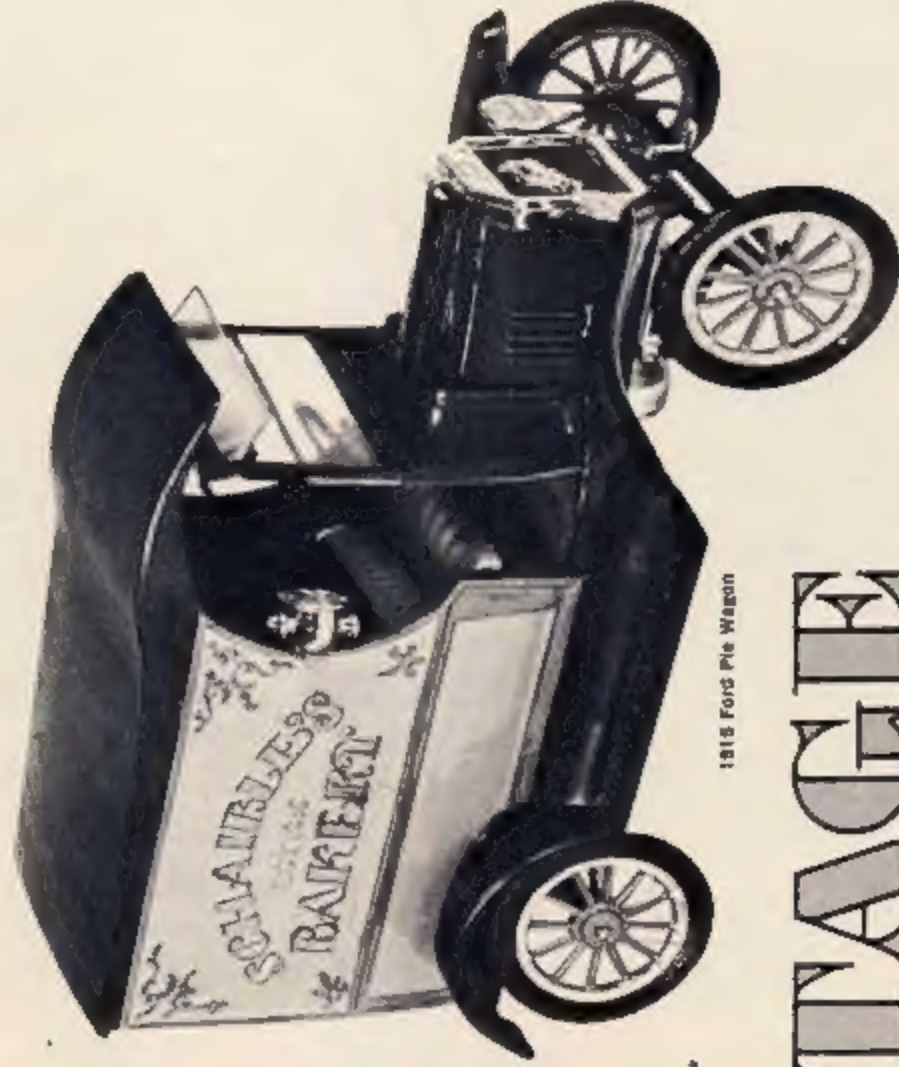
1911 Mercer Toy Tonneau



1911 Stevens Duryea Roadster



1905 Renault Runabout



1918 Ford Pie Wagon

*we know
you can't
find the
real thing,
but here
are
perfect
reproductions
in
kit form...*

VINTAGE IBRAS CARS

PLASTIC HOBBY KITS

BRASS FINISHED PARTS / SOFT VINYL TIRES AND SEPARATE WHEELS / SUGGESTED RETAIL
COMPLETE MOTOR / AUTHENTIC VINTAGE AUTOMOBILE COLORS / CLEAR PARTS **\$1.25** each

You can purchase them from your local hobby dealer. If your dealer does not have the kits you want, ask him to order it for you. If this is not convenient, order direct -- send \$15.00 and we will send you the complete set of 12 cars postage paid.

PLASTICS CORPORATION, PYRO PARK, UNION, NEW JERSEY 07083 **PYRO**



Along about 9,000 r.p.m., the Lotus fuel injection system starts to show its stuff

Last time down the chute, wide open, with the fuel gauge showing hardly enough to fill a coffee cup, but you've got it made. When the heat's on, you really start to appreciate all the hard work that went into the Lotus. Injection nozzles, air intakes, and hundreds of other precision parts — easy to overlook, but which, all added up, have helped bring the car bushels of wins from Watkins Glen to Silverstone.

A fantastic machine, and we've taken great pains to carefully reproduce every working detail just like the real thing. From the clear plastic fuel line, to semi-pneumatic rubber tires, to rubber radiator hoses, to fully operational sus-

pension and steering.

If you're really serious about modeling, you'll find the Tamiya Lotus Ford Model 49 lives up to the Grand Prix winner in every respect. At MRC, we wouldn't have it any other way.

Only from MRC, Tamiya $\frac{1}{12}$ kits—Tamiya Lotus 49 Ford F-1, and Tamiya Honda F-1, both \$11.98. Tamiya Porsche Carrera 10, \$14.98. All complete with electric motor. Now at your dealer's.



We look out for the little things **MODEL RECTIFIER CORPORATION**

